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TRANSACTIONS

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NEW SERIES—VOLUME 44, PART 6
1954

THE ILLUMINATION AND POLARIZATION OF THE SUNLIT SKY ON RAYLEIGH SCATTERING

S. CHANDRASEKHAR AND DONNA D. ELBERT

Yerkes Observatory, University of Chicago

THE AMERICAN PHILOSOPHICAL SOCIETY
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THE ILLUMINATION AND POLARIZATION OF THE SUNLIT SKY ON RAYLEIGH SCATTERING

S. CHANDRASEKHAR AND DONNA D. ELBERT

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1. INTRODUCTION

Since 1871 when Lord Rayleigh first accounted for the principal features of the brightness and polarization of the sunlit sky in terms of the laws of scattering now associated with his name, it has been generally recognized that a problem of fundamental importance both for meteorological optics and for theories of planetary illumination is the following:

A parallel beam of radiation in a given state of polarization is incident on a plane-parallel atmosphere of optical thickness τ_1 in some specified direction. Each element of the atmosphere scatters radiation in accordance with Rayleigh's laws. It is required to find the distribution of intensity and polarization of the light diffusely transmitted by the atmosphere below $\tau = \tau_1$ and of the light diffusely reflected by the atmosphere above $\tau = 0$.

In the theory of planetary illumination one is principally interested in the reflected light while in the theory of sky illumination one is similarly interested in the transmitted light. In this paper we shall be concerned only with the latter.

It is clear that an exact treatment of the foregoing problem in the theory of diffuse reflection and transmission will require the formulation and solution of the appropriate equations of radiative transfer. This was accomplished six years ago[1] and the theory is described and briefly illustrated in the book *Radiative Transfer* (Oxford, 1950) by one of us. A general account of the theory, together with a comparison of its predictions with observations particularly those relating to the polarization of the sunlit sky, was published in 1951 in a brief article.[2]

In this paper we shall present the calculations which we have made (at intervals) during the past five years with the object of giving the theory a concrete form. At one time it was our hope to present our calculations based on the exact mathematical solution of the problem with detailed comparisons not only with the available observational data but also with the calculations of the earlier investigators based on approximations of various kinds. But pressure of time and circumstance have forced us to abandon this plan: this paper will be restricted to giving the results of our calculations with only such comparisons with observations as seemed to us of particular interest.

[1] S. Chandrasekhar, On the radiative equilibrium of a stellar atmosphere. XXII. (V. Rayleigh scattering), *Astrophys. Jour.* **107**: 199, 1947.

[2] S. Chandrasekhar and Donna Elbert, Polarization of the sunlit sky, *Nature* **167**: 51, 1951.

2. THE SOLUTION OF THE FUNDAMENTAL PROBLEM

As we have stated, the problem in the theory of diffuse reflection and transmission formulated in § 1 has been exactly solved; the solution is given in *Radiative Transfer* (§§ 69–73). We shall not describe in any detail how the solution was obtained. But a few explanatory remarks on the parameters in terms of which the solution was obtained and on the structure of the solution itself may be useful in the present connection.

Since on Rayleigh's laws light gets partially plane-polarized whenever it is scattered, it is clear that in formulating the equations of radiative transfer we must allow for the partial plane-polarization of the radiation field. Now to describe a radiation field which is partially plane-polarized we need three parameters to specify the intensity, the degree of polarization, and the plane of polarization. It would scarcely be expected that one could include such diverse quantities as an intensity, a ratio, and an angle in any satisfactory way in formulating the basic equations of the problem. It appears that for these latter purposes the most convenient representation of polarized light is a set of parameters first introduced by Stokes[3] in 1852. The meaning of these parameters for a partially plane-polarized beam is simple: Let l and r refer to two arbitrarily chosen directions at right-angles to one another in the plane transverse to the direction of propagation of the beam. The intensity $I(\psi)$ in a direction making an angle ψ (measured clock-wise) to the direction of l can be expressed in the form

$$I(\psi) = I_l \cos^2 \psi + I_r \sin^2 \psi + \tfrac{1}{2} U \sin 2\psi. \qquad (1)$$

The coefficients I_l, I_r and U in this representation are the Stokes parameters. In terms of these parameters the angle χ which the plane of polarization makes with the direction l and the degree of polarization, δ, are given by

$$\tan 2\chi = U/(I_l - I_r) \qquad (2)$$

[3] G. G. Stokes, On the composition and resolution of streams of polarized light from different sources, *Trans. Camb. Phil. Soc.* **9**: 399, 1852.

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$$\tan 2\chi = U/(I_l - I_r) \qquad (2)$$

[3] G. G. Stokes, On the composition and resolution of streams of polarized light from different sources, *Trans. Camb. Phil. Soc.* **9**: 399, 1852.

and

$$\delta = (I_l - I_r) \sec 2\chi/(I_l + I_r). \tag{3}$$

The additive property of the Stokes parameters which makes them so convenient for treating problems of radiative transfer is evident from the representation (1): If two independent streams of polarized light are mixed, then the Stokes parameter characterizing the mixture is the sum of the Stokes parameters of the individual streams.

In terms of the Stokes parameters a law of scattering is specified by a matrix, since an elementary act of scattering results in a linear transformation of the parameters. Consequently, by considering the intensity as a vector $\boldsymbol{I}$ with the components I_l, I_r and U (where l and r from now on refer to directions parallel and perpendicular, respectively, to the meridian through the point under consideration and in the plane containing the directions of the beam and of the normal to the plane of stratification of the atmosphere) and by replacing the "phase function" commonly introduced to describe the angular distribution of the scattered radiation by a *phase matrix*, $\boldsymbol{P}$, we can formulate the basic equation of transfer without any difficulty of principle. In this manner we find that the equation we have to solve is[4]

$$\mu \frac{d\boldsymbol{I}(\tau, \mu, \varphi)}{d\tau} = \boldsymbol{I}(\tau, \mu, \varphi) - \frac{1}{4\pi}\int_{-1}^{+1}\int_{0}^{2\pi} \boldsymbol{P}(\mu, \varphi; \mu', \varphi')\boldsymbol{I}(\tau, \mu', \varphi')\, d\mu'\, d\varphi' - \tfrac{1}{4}e^{-\tau/\mu_0}\boldsymbol{P}(\mu, \varphi; -\mu_0, \varphi_0)\boldsymbol{F}. \tag{4}$$

where

$$\boldsymbol{F} = (F_l, F_r, F_U) \tag{5}$$

is the (Stokes) vector which represents the parallel beam of radiation incident on the atmosphere in the direction $(-\mu_0, \varphi_0)$: πF_l, πF_r and πF_U denote the net fluxes per unit area normal to the beam in the three Stokes parameters. Further, in equation (4) μ denotes the cosine of the angle to the outward normal and the azimuthal angle. And, finally, for the case of Rayleigh scattering the phase matrix $\boldsymbol{P}(\mu, \varphi; \mu', \varphi')$ has the explicit form:

$$\boldsymbol{P}(\mu, \varphi; \mu', \varphi') = Q[\boldsymbol{P}^{(0)}(\mu, \mu') + (1 - \mu^2)^{\frac{1}{2}}(1 - \mu'^2)^{\frac{1}{2}}\boldsymbol{P}^{(1)}(\mu, \varphi; \mu', \varphi') + \boldsymbol{P}^{(2)}(\mu, \varphi; \mu', \varphi')], \tag{6}$$

where

$$Q = \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 2 \end{bmatrix}, \tag{7}$$

$$\boldsymbol{P}^{(0)}(\mu, \mu') = \frac{3}{4}\begin{bmatrix} 2(1 - \mu^2)(1 - \mu'^2) + \mu^2\mu'^2 & \mu^2 & 0 \\ \mu'^2 & 1 & 0 \\ 0 & 0 & 0 \end{bmatrix}, \tag{8}$$

$$\boldsymbol{P}^{(1)}(\mu, \varphi; \mu', \varphi') = \frac{3}{4}\begin{bmatrix} 4\mu\mu' \cos(\varphi' - \varphi) & 0 & 2\mu \sin(\varphi' - \varphi) \\ 0 & 0 & 0 \\ -2\mu' \sin(\varphi' - \varphi) & 0 & \cos(\varphi' - \varphi) \end{bmatrix} \tag{9}$$

and

$$\boldsymbol{P}^{(2)}(\mu, \varphi; \mu', \varphi') = \frac{3}{4}\begin{bmatrix} \mu^2\mu'^2 \cos 2(\varphi' - \varphi) & -\mu^2 \cos 2(\varphi' - \varphi) & \mu^2\mu' \sin 2(\varphi' - \varphi) \\ -\mu'^2 \cos 2(\varphi' - \varphi) & \cos 2(\varphi' - \varphi) & -\mu' \sin 2(\varphi' - \varphi) \\ -\mu\mu'^2 \sin 2(\varphi' - \varphi) & \mu \sin 2(\varphi' - \varphi) & \mu\mu' \cos 2(\varphi' - \varphi) \end{bmatrix}. \tag{10}$$

The solution of equation (4) appropriate to the problem on hand must satisfy the boundary conditions

$$\left.\begin{aligned} &\boldsymbol{I}(0, -\mu, \varphi) \equiv 0 \quad (0 < \mu \leqslant 1, \quad 0 \leqslant \varphi \leqslant 2\pi) \\ &\text{and} \\ &\boldsymbol{I}(\tau_1, +\mu, \varphi) \equiv 0 \quad (0 < \mu \leqslant 1, \quad 0 \leqslant \varphi \leqslant 2\pi), \end{aligned}\right\} \tag{11}$$

since there is no diffuse radiation in any inward direction at $\tau = 0$ and in any outward direction at $\tau = \tau_1$. And the solution to the problem of diffuse reflection and transmission will be completed when we specify the angular distribution and the state of polarization of the diffuse light which emerges from $\tau = 0$ and $\tau = \tau_1$.

The laws of diffuse reflection and transmission by a plane-parallel atmosphere are generally expressed (*cf. Radiative Transfer*, 44) in terms of a *scattering matrix*, $\boldsymbol{S}(\mu, \varphi; \mu_0, \varphi_0)$ and a *transmission matrix*, $\boldsymbol{T}(\mu, \varphi; \mu_0, \varphi_0)$ such that the reflected and the transmitted intensities are given by

$$\left.\begin{aligned} &\boldsymbol{I}(0; \mu, \varphi; \mu_0, \varphi_0) = \frac{1}{4\mu}\boldsymbol{S}(\mu, \varphi; \mu_0, \varphi_0)\boldsymbol{F} \\ &\text{and} \\ &\boldsymbol{I}(\tau_1; -\mu, \varphi; \mu_0, \varphi_0) = \frac{1}{4\mu}\boldsymbol{T}(\mu, \varphi; \mu_0, \varphi_0)\boldsymbol{F}. \end{aligned}\right\} \tag{12}$$

Our problem, then, is to specify $\boldsymbol{S}$ and $\boldsymbol{T}$ for an atmosphere scattering radiation in accordance with Rayleigh's laws.

[4] The derivation of the equations which follow will be found in *Radiative Transfer* § 16: 35–45.

The elements of $\boldsymbol{S}$ and $\boldsymbol{T}$ are clearly functions of the four variables μ, φ, μ_0 and φ_0 in addition, of course, to the optical thickness τ_1 which may, however, be treated as a parameter. If the variables μ, φ, μ_0 and φ_0 were not separable the problem of tabulating $\boldsymbol{S}$ and $\boldsymbol{T}$ may indeed be considered as impracticable. But the essential feature of the solution for $\boldsymbol{S}$ and $\boldsymbol{T}$ (which we shall presently write down) which makes the problem a practicable one is that $\boldsymbol{S}$ and $\boldsymbol{T}$ involve only four pairs of functions $X_l(\mu)$, $Y_l(\mu)$; $X_r(\mu)$, $Y_r(\mu)$; $X^{(1)}(\mu)$, $Y^{(1)}(\mu)$; and $X^{(2)}(\mu)$, $Y^{(2)}(\mu)$ all of the single variable μ. Further, these four pairs of functions belong to a general class (the X- and Y-functions) which satisfy a simultaneous pair of integral equations of the form[5]

$$X(\mu) = 1 + \mu \int_0^1 \frac{\Psi(\mu')}{\mu + \mu'} \times [X(\mu)X(\mu') - Y(\mu)Y(\mu')]\,d\mu' \quad (13)$$

and

$$Y(\mu) = e^{-\tau_1/\mu} + \mu \int_0^1 \frac{\Psi(\mu')}{\mu - \mu'} \times [Y(\mu)X(\mu') - X(\mu)Y(\mu')]\,d\mu', \quad (14)$$

where the *characteristic function* $\Psi(\mu)$ is in problems of radiative transfer, an even polynomial in μ satisfying the condition

$$\int_0^1 \Psi(\mu)\,d\mu \leqslant \tfrac{1}{2}. \quad (15)$$

The case when equality occurs in (15) (the so-called *conservative case*) is special: The solutions of equations (13) and (14) are, then, no longer unique; they form instead a one-parameter family. In conservative cases one therefore defines what are called *standard solutions* which have the property:

$$\int_0^1 X(\mu)\Psi(\mu)\,d\mu = 1$$

and (16)

$$\int_0^1 Y(\mu)\Psi(\mu)\,d\mu = 0.$$

As we have already stated, the solutions for $\boldsymbol{S}$ and $\boldsymbol{T}$ (for an atmosphere scattering radiation in accordance with Rayleigh's laws) involve only four pairs of X- and Y-functions: X_l, Y_l; X_r, Y_r; $X^{(1)}$, $Y^{(1)}$; $X^{(2)}$, $Y^{(2)}$; and the characteristic functions in terms of which these are defined are:

$$\Psi_l(\mu) = \tfrac{3}{4}(1 - \mu^2);$$
$$\Psi_r(\mu) = \tfrac{3}{8}(1 - \mu^2),$$
$$\Psi^{(1)}(\mu) = \tfrac{3}{8}(1 - \mu^2)(1 + 2\mu^2)$$

and

$$\Psi^{(2)}(\mu) = \tfrac{3}{16}(1 + \mu^2)^2, \quad (17)$$

respectively. The function $\Psi_l(\mu)$ belongs to the conservative class; accordingly, in this case we define $X_l(\mu)$, $Y_l(\mu)$ as the standard solutions having the property

$$\tfrac{3}{4}\int_0^1 X_l(\mu)(1 - \mu^2)\,d\mu = 1$$

and (18)

$$\int_0^1 Y_l(\mu)(1 - \mu^2)\,d\mu = 0.$$

After these explanatory remarks we shall now write down the solutions for $\boldsymbol{S}$ and $\boldsymbol{T}$ given in *Radiative Transfer:*

The scattering and the transmission matrices allow a decomposition into azimuth independent and azimuth dependent terms in the same manner as the phase matrix [equation (6)] and have the forms:

$$\boldsymbol{S}(\mu, \varphi; \mu_0, \varphi_0) = \boldsymbol{Q}[\tfrac{3}{4}\boldsymbol{S}^{(0)}(\mu; \mu_0) + (1 - \mu^2)^{\frac{1}{2}}(1 - \mu_0^2)^{\frac{1}{2}}\boldsymbol{S}^{(1)}(\mu, \varphi; \mu_0, \varphi_0) + \boldsymbol{S}^{(2)}(\mu, \varphi; \mu_0, \varphi_0)] \quad (19)$$

and

$$\boldsymbol{T}(\mu, \varphi; \mu_0, \varphi_0) = \boldsymbol{Q}[\tfrac{3}{4}\boldsymbol{T}^{(0)}(\mu; \mu_0) + (1 - \mu^2)^{\frac{1}{2}}(1 - \mu_0^2)^{\frac{1}{2}}\boldsymbol{T}^{(1)}(\mu, \varphi; \mu_0, \varphi_0) + \boldsymbol{T}^{(2)}(\mu, \varphi; \mu_0, \varphi_0)]. \quad (20)$$

The dependence of the azimuth dependent terms $(\boldsymbol{S}^{(1)}, \boldsymbol{T}^{(1)})$ and $(\boldsymbol{S}^{(2)}, \boldsymbol{T}^{(2)})$ on $\varphi_0 - \varphi$ are essentially the same as $\boldsymbol{P}^{(1)}$ and $\boldsymbol{P}^{(2)}$; indeed, we have

$$\left(\frac{1}{\mu_0} + \frac{1}{\mu}\right)\boldsymbol{S}^{(i)} = [X^{(i)}(\mu)X^{(i)}(\mu_0) - Y^{(i)}(\mu)Y^{(i)}(\mu_0)]\boldsymbol{P}^{(i)}(\mu, \varphi; -\mu_0, \varphi_0)$$

and

$$\left(\frac{1}{\mu_0} - \frac{1}{\mu}\right)\boldsymbol{T}^{(i)} = [Y^{(i)}(\mu)X^{(i)}(\mu_0) - X^{(i)}(\mu)Y^{(i)}(\mu_0)]\boldsymbol{P}^{(i)}(-\mu, \varphi; -\mu_0, \varphi_0) \quad (i = 1, 2). \quad (21)$$

In contrast, the solutions for the azimuth independent terms $\boldsymbol{S}^{(0)}$ and $\boldsymbol{T}^{(0)}$ are very complicated. They are given by

$$\left(\frac{1}{\mu_0} + \frac{1}{\mu}\right)\boldsymbol{S}^{(0)}(\mu; \mu_0) = \begin{pmatrix} \psi(\mu) & 2^{\frac{1}{2}}\phi(\mu) & 0 \\ \chi(\mu) & 2^{\frac{1}{2}}\zeta(\mu) & 0 \\ 0 & 0 & 0 \end{pmatrix}\begin{pmatrix} \psi(\mu_0) & \chi(\mu_0) & 0 \\ 2^{\frac{1}{2}}\phi(\mu_0) & 2^{\frac{1}{2}}\zeta(\mu_0) & 0 \\ 0 & 0 & 0 \end{pmatrix} - \begin{pmatrix} \xi(\mu) & 2^{\frac{1}{2}}\eta(\mu) & 0 \\ \sigma(\mu) & 2^{\frac{1}{2}}\theta(\mu) & 0 \\ 0 & 0 & 0 \end{pmatrix}\begin{pmatrix} \xi(\mu_0) & \sigma(\mu_0) & 0 \\ 2^{\frac{1}{2}}\eta(\mu_0) & 2^{\frac{1}{2}}\theta(\mu_0) & 0 \\ 0 & 0 & 0 \end{pmatrix} \quad (22)$$

[5] For the theory of the X- and Y-functions see *Radiative Transfer*, chap. VIII.

and

$$\left(\frac{1}{\mu_0}-\frac{1}{\mu}\right)\boldsymbol{T}^{(0)}(\mu;\mu_0)=\begin{pmatrix}\xi(\mu) & 2^{\frac{1}{2}}\eta(\mu) & 0\\ \sigma(\mu) & 2^{\frac{1}{2}}\theta(\mu) & 0\\ 0 & 0 & 0\end{pmatrix}\begin{pmatrix}\psi(\mu_0) & \chi(\mu_0) & 0\\ 2^{\frac{1}{2}}\phi(\mu_0) & 2^{\frac{1}{2}}\zeta(\mu_0) & 0\\ 0 & 0 & 0\end{pmatrix}$$
$$-\begin{pmatrix}\psi(\mu) & 2^{\frac{1}{2}}\phi(\mu) & 0\\ \chi(\mu) & 2^{\frac{1}{2}}\zeta(\mu) & 0\\ 0 & 0 & 0\end{pmatrix}\begin{pmatrix}\xi(\mu_0) & \sigma(\mu_0) & 0\\ 2^{\frac{1}{2}}\eta(\mu_0) & 2^{\frac{1}{2}}\theta(\mu_0) & 0\\ 0 & 0 & 0\end{pmatrix}, \quad (23)$$

where ψ, ϕ, χ, etc., are eight functions expressible in terms of the two pairs of X- and Y-functions, X_l, Y_l and X_r, Y_r in the forms

$$\begin{aligned}
\psi(\mu) &= \mu[\nu_1 Y_l(\mu) - \nu_2 X_l(\mu)],\\
\xi(\mu) &= \mu[\nu_2 Y_l(\mu) - \nu_1 X_l(\mu)],\\
\phi(\mu) &= (1+\nu_4\mu)X_l(\mu) - \nu_3\mu Y_l(\mu),\\
\eta(\mu) &= (1-\nu_4\mu)Y_l(\mu) + \nu_3\mu X_l(\mu),\\
\chi(\mu) &= (1-u_4\mu)X_r(\mu) + u_3\mu Y_r(\mu) + Q(u_4-u_3)\mu^2[X_r(\mu) - Y_r(\mu)],\\
\sigma(\mu) &= (1+u_4\mu)Y_r(\mu) - u_3\mu X_r(\mu) - Q(u_4-u_3)\mu^2[X_r(\mu) - Y_r(\mu)],\\
\zeta(\mu) &= \tfrac{1}{2}\mu[\nu_1 Y_r(\mu) - \nu_2 X_r(\mu)] + \tfrac{1}{2}Q(\nu_2-\nu_1)\mu^2[X_r(\mu) - Y_r(\mu)],\\
\theta(\mu) &= \tfrac{1}{2}\mu[\nu_2 Y_r(\mu) - \nu_1 X_r(\mu)] - \tfrac{1}{2}Q(\nu_2-\nu_1)\mu^2[X_r(\mu) - Y_r(\mu)],
\end{aligned} \quad (24)$$

where the constants ν_1, ν_2, ν_3, ν_4, u_3, u_4 and Q are to be determined by the following formulae:

$$\begin{aligned}
&\nu_2+\nu_1 = 2\Delta_1(\kappa_1\delta_1 - \kappa_2\delta_2); \quad \nu_2-\nu_1 = 2\Delta_2(\kappa_1\delta_1 - \kappa_2\delta_2),\\
&\nu_4+\nu_3 = \Delta_1(d_1\kappa_1 - d_0\kappa_2); \quad \nu_4-\nu_3 = \Delta_2[c_1\delta_1 - c_0\delta_2 - 2Q(d_0\delta_1 - d_1\delta_2)],\\
&u_4+u_3 = \Delta_1(c_1\delta_1 - c_0\delta_2); \quad u_4-u_3 = \Delta_2(d_1\kappa_1 - d_0\kappa_2),\\
&\Delta_1 = (d_0\delta_1 - d_1\delta_2)^{-1}; \quad \Delta_2 = [c_0\kappa_1 - c_1\kappa_2 - 2Q(d_1\kappa_1 - d_0\kappa_2)]^{-1},\\
&Q = (c_0-c_2)[(d_0-d_2)\tau_1 + 2(d_1-d_3)]^{-1},\\
&c_0 = A_0 + B_0 - \frac{8}{3}; \quad d_0 = A_0 - B_0 - \frac{8}{3},\\
&c_n = A_n + B_n; \quad d_n = A_n - B_n; \quad \kappa_n = \alpha_n + \beta_n; \quad \delta_n = \alpha_n - \beta_n \qquad (n = 1, 2, 3, \cdots),
\end{aligned} \quad (25)$$

α_n, β_n, A_n and B_n are the moments of order n of X_l, Y_l, X_r and Y_r, respectively. (It may be recalled here that X_l and Y_l are the standard solutions for the case.)

In the theory of the illumination of the sky we are interested in the transmitted light in the case of incident natural light. In this latter case $F_l = F_r = \frac{1}{2}F$ (where πF denotes the net flux of the incident natural light) and $F_U = 0$. The equations governing the intensity and polarization of the sky as witnessed by an observer at $\tau = \tau_1$ in these circumstances readily follow from the solutions already given; thus by setting $\boldsymbol{F} = \frac{1}{2}(F_l, F_r, 0)$ in equation (12) and combining equations (20), (21), and (23) appropriately, we find:

$$\begin{aligned}
I_l(\tau_1; -\mu, \varphi; \mu_0, \varphi_0) &= \tfrac{3}{32}[\{\psi(\mu_0)+\chi(\mu_0)\}\xi(\mu) + 2\{\phi(\mu_0)+\zeta(\mu_0)\}\eta(\mu) - \{\xi(\mu_0)+\sigma(\mu_0)\}\psi(\mu)\\
&\quad - 2\{\theta(\mu_0)+\eta(\mu_0)\}\phi(\mu) + 4\mu\mu_0(1-\mu^2)^{\frac{1}{2}}(1-\mu_0^2)^{\frac{1}{2}}\{X^{(1)}(\mu_0)Y^{(1)}(\mu) - Y^{(1)}(\mu_0)X^{(1)}(\mu)\}\cos(\varphi_0-\varphi)\\
&\quad - \mu^2(1-\mu_0^2)\{X^{(2)}(\mu_0)Y^{(2)}(\mu) - Y^{(2)}(\mu_0)X^{(2)}(\mu)\}\cos 2(\varphi_0-\varphi)]\frac{F\mu_0}{\mu-\mu_0},\\
I_r(\tau_1; -\mu, \varphi; \mu_0, \varphi_0) &= \tfrac{3}{32}[\{\psi(\mu_0)+\chi(\mu_0)\}\sigma(\mu) + 2\{\phi(\mu_0)+\zeta(\mu_0)\}\theta(\mu) - \{\xi(\mu_0)+\sigma(\mu_0)\}\chi(\mu)\\
&\quad - 2\{\theta(\mu_0)+\eta(\mu_0)\}\zeta(\mu) + (1-\mu_0^2)\{X^{(2)}(\mu_0)Y^{(2)}(\mu) - Y^{(2)}(\mu_0)X^{(2)}(\mu)\}\cos 2(\varphi_0-\varphi)]\frac{F\mu_0}{\mu-\mu_0}
\end{aligned}$$

and

$$\begin{aligned}
U(\tau_1; -\mu, \varphi; \mu_0, \varphi_0) &= \tfrac{3}{16}[2(1-\mu^2)^{\frac{1}{2}}(1-\mu_0^2)^{\frac{1}{2}}\mu_0\{X^{(1)}(\mu_0)Y^{(1)}(\mu) - Y^{(1)}(\mu_0)X^{(1)}(\mu)\}\sin(\varphi_0-\varphi)\\
&\quad - \mu(1-\mu_0^2)\{X^{(2)}(\mu_0)Y^{(2)}(\mu) - Y^{(2)}(\mu_0)X^{(2)}(\mu)\}\sin 2(\varphi_0-\varphi)]\frac{F\mu_0}{\mu-\mu_0}.
\end{aligned} \quad (26)$$

3. THE EFFECT OF REFLECTION BY THE GROUND

Before we can apply the solution for $\boldsymbol{S}$ and $\boldsymbol{T}$ given in § 2 to the problem of the illumination of the sky, we must consider the effect of the ground at $\tau = \tau_1$. The solution for $\boldsymbol{S}$ and $\boldsymbol{T}$ given in § 2 was derived on the assumption that at $\tau = \tau_1$ there is no diffuse radiation in the outward direction [*cf.* equation (11)]. The presence of the ground will alter this. However, if the law of reflection by the ground is specified then it is not a difficult matter to relate the solution of the problem when there is a ground to the solution of the problem when there is no ground. This reduction is particularly simple if the ground reflects according to Lambert's law with a certain albedo λ_0; that is, if the light reflected by the ground is unpolarized and uniform in the outward hemisphere independently of the state of polarization and the angular distribution of the incident light, and if, further, the outward flux of the reflected light is always a certain fixed fraction, λ_0, of the inward flux of the radiation incident on the surface. Under these latter circumstances it can be shown (*Radiative Transfer*, § 73) that the effect of the ground is to increase the diffuse intensities emergent at $\tau = 0$ and directed inward at $\tau = \tau_1$ by amounts $\boldsymbol{I}^*(0; \mu, \varphi)$ and $\boldsymbol{I}^*(\tau_1; -\mu, \varphi)$ given by

$$\boldsymbol{I}^*(0; \mu, \varphi) = \frac{\lambda_0\mu_0}{2(1 - \lambda_0\bar{s})}\,\boldsymbol{\Gamma}(\mu; \mu_0)\boldsymbol{F} \tag{27}$$

and

$$\boldsymbol{I}^*(\tau_1; -\mu, \varphi) = \frac{\lambda_0\mu_0}{2(1 - \lambda_0\bar{s})}\,\boldsymbol{\Lambda}(\mu; \mu_0)\boldsymbol{F}, \tag{28}$$

where $\bar{s}$ is a constant (to be defined presently) and

$$\boldsymbol{\Gamma}(\mu; \mu_0) = \begin{bmatrix} \gamma_l(\mu)\gamma_l(\mu_0) & \gamma_l(\mu)\gamma_r(\mu_0) & 0 \\ \gamma_r(\mu)\gamma_l(\mu_0) & \gamma_r(\mu)\gamma_r(\mu_0) & 0 \\ 0 & 0 & 0 \end{bmatrix} \tag{29}$$

and

$$\boldsymbol{\Lambda}(\mu; \mu_0) = \begin{bmatrix} \{1 - \gamma_l(\mu)\}\gamma_l(\mu_0) & \{1 - \gamma_l(\mu)\}\gamma_r(\mu_0) & 0 \\ \{1 - \gamma_r(\mu)\}\gamma_l(\mu_0) & \{1 - \gamma_r(\mu)\}\gamma_r(\mu_0) & 0 \\ 0 & 0 & 0 \end{bmatrix}. \tag{30}$$

In equations (29) and (30) $\gamma_l(\mu)$ and $\gamma_r(\mu)$ are two functions which are related to X_l, Y_l, X_r and Y_r by

$$\gamma_l(\mu) = \tfrac{3}{8}Q(\nu_2 - \nu_1)(d_0 - d_2)[X_l(\mu) + Y_l(\mu)], \tag{31}$$

and

$$\gamma_r(\mu) = \tfrac{3}{8}Q(d_0 - d_2) \times [(u_4 - u_3)\{X_r(\mu) + Y_r(\mu)\} - u_5\mu\{X_r(\mu) + Y_r(\mu)\}], \tag{32}$$

where

$$u_5 = \Delta_2(c_0\kappa_1 - c_1\kappa_2), \tag{33}$$

and the remaining constants have the same meanings as in equations (25). Finally, the constant $\bar{s}$ in equations (27) and (28) is given by

$$\bar{s} = 1 - \tfrac{3}{8}Q(d_0 - d_2) \times [(\nu_2 - \nu_1)\kappa_1 + (u_4 - u_3)c_1 - u_5d_2]. \tag{34}$$

Again, when the incident light is natural the corrections which have to be made to the intensities given by equations (26) to allow for a ground surface at $\tau = \tau_1$ which reflects according to Lambert's law with an albedo λ_0 are given by

$$I_l^*(\tau_1; -\mu, \varphi; \mu_0, \varphi_0) = \frac{\lambda_0}{4(1 - \lambda_0\bar{s})}\{\gamma_l(\mu_0) + \gamma_r(\mu_0)\} \times \{1 - \gamma_l(\mu)\}\mu_0F,$$

$$I_r^*(\tau_1; -\mu, \varphi; \mu_0, \varphi_0) = \frac{\lambda_0}{4(1 - \lambda_0\bar{s})}\{\gamma_l(\mu_0) + \gamma_r(\mu_0)\} \times \{1 - \gamma_r(\mu)\}\mu_0F,$$

$$U^*(\tau_1; -\mu, \varphi; \mu_0, \varphi_0) = 0. \tag{35}$$

4. DESCRIPTION OF THE TABLES

The solution of the fundamental problem in the theory of the illumination of the sky given in the two preceding sections was obtained some six years ago. A detailed examination of its predictions had to await the tabulation of the basic eight functions X_l, Y_l, X_r, Y_r, $X^{(1)}$, $Y^{(1)}$, $X^{(2)}$, and $Y^{(2)}$ of the variable μ for various values of τ_1. This tabulation has now been completed for $\tau_1 = 0.05$, 0.10, 0.15, 0.20, 0.25, 0.50, and 1.00 with the cooperation of the Watson Scientific Computing Laboratory (New York).[6] The solutions were obtained by a direct process of iteration applied to the governing integral equations. The iterations were started with the solutions in the corrected second approximation described in *Radiative Transfer*, Chapter VIII [§ 60, see particularly equations (117), (118), and (120)]. The corrected second

[6] While these calculations were in progress, Dr. Z. Sekera initiated a similar program at the Department of Meteorology of the University of California at Los Angeles in cooperation with the Institute for Numerical Analysis of the National Bureau of Standards at Los Angeles. Their Report No. 3 (prepared by the Air Material Command, Air Force Cambridge Research Center) provides some calculations for $\tau_1 = 0.15$, 0.25, and 1.0. Their calculations, while they are much less extensive than ours, do provide a valuable check.

approximations were computed by one of us (D. D. E.) at the Yerkes Observatory. The iterations were carried out at the Watson Scientific Laboratory with IBM pluggable sequence relay calculators by Miss Ann Franklin to whom and to Dr. Wallace Eckert we are very greatly indebted. The functions obtained after the iterations showed, however, a certain "raggedness" between $\mu = 0.9$ and 1.0. The solutions have therefore been "smoothed" by plotting the deviations of the iterated solutions from the corrected second approximations. Table 1 presents these smoothed solutions. While the solutions have been tabulated to five decimals the last place is definitely not reliable. But it is expected that if the tabulated solutions are rounded to one less place the solution may be trusted to two or three units in the surviving place. The solutions for $\tau_1 \leqslant 0.20$ are very probably more accurate than this while for $\tau_1 = 0.5$ and 1.0 they may be less accurate. Nevertheless, the solutions are given to five places since the functions as tabulated do have smooth differences and as such they can be used for further iterations to improve their accuracy if the need for it should arise.

The moments α_n, β_n, A_n and B_n of order n of X_l, Y_l, X_r and Y_r, respectively, which are needed in the evaluation of the various terms of $\boldsymbol{S}$ and $\boldsymbol{T}$ are given in table 2. The theory of the X- and Y-functions leads to a number of identical relations which must exist between their moments; these relations among the moments listed in table 2 have been verified within the accuracy of the tabulated values. Table 2 also includes the values of the constants ν_1, ν_2, ν_3, ν_4, u_3, u_4 and Q which occur in the definitions of the functions ψ, ϕ, etc. [equations (24) and (25)]; the value of the constant $\bar{s}$ [equation (34)] which occurs in the expressions for the ground corrections [equations (27) and (28)] is also listed in this table.

According to equations (22) and (23) the calculation of $\boldsymbol{S}$ and $\boldsymbol{T}$ in a given case can be most easily carried out in terms of the auxiliary functions ψ, ϕ, χ, ζ, ξ, η, σ and θ. These functions computed with the aid of tables 1 and 2 are given in table 3. Similarly, table 4 gives the functions $\gamma_l(\mu)$ and $\gamma_r(\mu)$ which are needed to allow for reflection by the ground [*cf.* equations (31) and (32)].

With the basic functions tabulated we can calculate the theoretical illumination and polarization of the sky on Rayleigh scattering for plane-parallel atmospheres. To illustrate the use of tables 1–4 we have made some model calculations to which the remaining tables are devoted.

The most extensive calculations were made for $\tau_1 = 0.15$; this is approximately the value of the optical thickness at λ4500A. For $\tau_1 = 0.15$, angles of incidence (or, zenith distances) $\theta_0 = 90°$, 85.4°, 76.1°, 58.7°, 50.1°, 43.9°, 36.9°, 19.95°, and 0° (corresponding to $\mu_0 = 0$, 0.08, 0.24, 0.52, 0.64, 0.72, 0.80, 0.94, and 1.00) and azimuthal differences $\varphi_0 - \varphi$ (denoted, simply, by φ in the tables) = 0°(10°)90° were considered. The results of the calculations are summarized in table 5; it gives the total intensity, $I_l + I_r$, in units of F, the inclination, χ, of the plane of polarization with the meridian through the direction of observation and the degree of polarization, δ. Less extensive calculations were made for $\tau_1 = 0.10$ and 0.20. For these two values of the optical thicknesses the total intensity $(I_l + I_r)$ and the degree of polarization, δ, were found only in the principal meridian $(\varphi_0 - \varphi = 0°)$ containing the sun and in the plane at right-angles $(\varphi_0 - \varphi = 90°)$ for zenith distances $\theta_0 =$ 90°, 80.8°, 60°, 30.7°, and 0° (corresponding to $\mu_0 = 0$, 0.16, 0.50, 0.86, and 1.00). The results of the calculations are given in tables 6 and 7.

In the calculations presented in tables 5–7 no allowance has been made for the reflection by the ground surface. This is taken into account in tables 8–10 in accordance with equations (35). Again, the most extensive calculations were made for $\tau_1 = 0.15$. For angles of incidence corresponding to $\mu_0 = 0$, 0.24, 0.52, 0.64, 0.72, 0.80, and 1.00 the effect of a ground reflecting according to Lambert's law for two values of the albedo, λ_0, on the intensity and the degree of polarization in the principal meridian $(\varphi_0 - \varphi = 0°)$ was determined. For $\mu_0 = 0.64$ the effect on the intensity for $\varphi_0 - \varphi = 0°(10°)90°$ and $\lambda_0 = 0.10$ was determined; and for the same angle of incidence the effect on the intensity for $\varphi_0 - \varphi = 90°$ was also found for $\lambda_0 = 0.25$. The results of all these calculations are given in table 8. For $\tau_1 = 0.10$ and 0.20 the effect of ground reflection on the intensity and polarization in the principal meridian is illustrated for $\lambda_0 = 0.10$ and 0.20 and for angles of incidence corresponding to $\mu_0 = 0$, 0.16, 0.50, 0.86, and 1.00. The results of these calculations are given in tables 9 and 10.

Table 11 gives the positions of the neutral points. The results given in this table will be described and discussed in the following section.

Finally the supplementary table 12 gives the functions ψ, ϕ, χ, ζ, ξ, η, σ, θ, $X^{(1)}$, $Y^{(1)}$, $X^{(2)}$, $Y^{(2)}$, γ_l, and γ_r for $\tau_1 = 0.01(0.01)0.20(0.05)0.50(0.10)1.0$ and for representative values of μ. At the head of the table for each value τ_1, the value of $\bar{s}$ (needed for the evaluation of the ground correction) is also given. The values of the functions listed in this table are *not* based on the solutions of the basic X- and Y-functions derived from the integral equations they satisfy; they are based, instead, on the corrected second approximations (*cf. Radiative Transfer*, § 60) for the relevant X- and Y-functions. However, for $\tau_1 \leqslant 0.25$ the table should suffice to calculate $\boldsymbol{S}$ and $\boldsymbol{T}$ to well within a fraction of a per cent; for the larger values of τ_1 accuracy within a few per cent may be expected. But one could, if one wished, obtain from these tables values of considerably higher precision by differencing the values of the functions for $\tau_1 = 0.05$, 0.10, 0.15,

0.20, 0.25, 0.50, and 1.0 given in tables 3 and 12 and interpolating among these differences to estimate the corrections (to the values given by the corrected second approximation) for any other intermediate value of τ_1. With these supplementary tables, then, the theory developed and described in *Radiative Transfer* has been, finally, brought to a point where it is capable of giving numerical values for any of the desired quantities under most conditions in which they are likely to be of interest.

5. THE POLARIZATION OF THE SUNLIT SKY: THE THEORY OF THE NEUTRAL POINTS AND LINES

As we have already stated in the introductory section we shall not attempt in this paper any detailed comparison between the calculations presented here and those of earlier investigators based on approximations of various kinds. But an exception might be made with regard to the quantitative explanation which the present theory affords for the phenomena associated with the *neutral points* of Arago, Babinet, and Brewster. The phenomena in question are these:

The neutral points are the points of zero polarization; from symmetry we should, of course, expect them to occur in the principal meridian. And for a long time it has been known that there are in general two such neutral points. For angles of incidence not exceeding 70° these neutral points occur between 0° and 20° above and below the sun; these are the neutral points of Babinet and Brewster, respectively. But when the sun is low, the neutral point occurs about 20° above the anti-solar point in the opposite sky: this is the Arago point. These facts concerning the

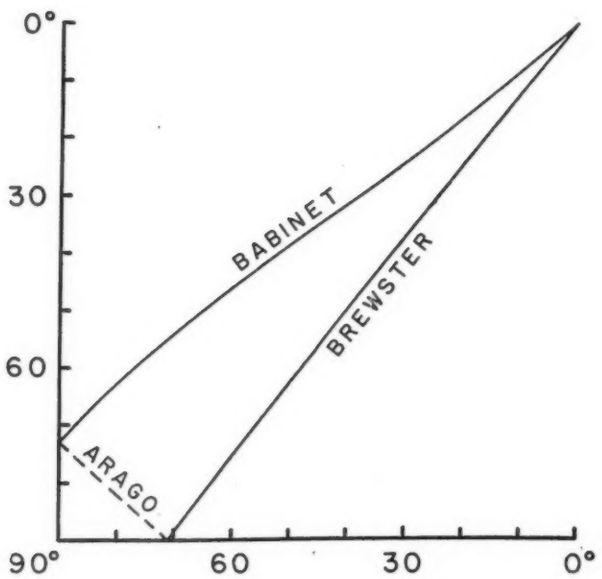

FIG. 1. Calculated positions of the neutral points for various angles of incidence for an atmosphere of optical thickness $\tau_1 = 0.10$. The abscissa gives the zenith distance of the sun and the ordinate gives the corresponding positions of the neutral points. The Arago point occurs on the side of the horizon opposite the sun; to emphasize this its position on the sky is indicated by the dashed curve.

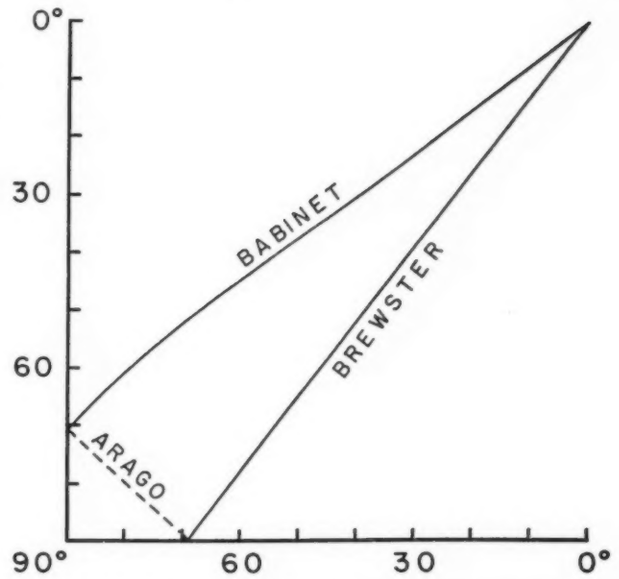

FIG. 2. Calculated positions of the neutral points for various angles of incidence for an atmosphere of optical thickness $\tau_1 = 0.15$. The abscissa and the ordinate have otherwise the same meanings as in fig. 1.

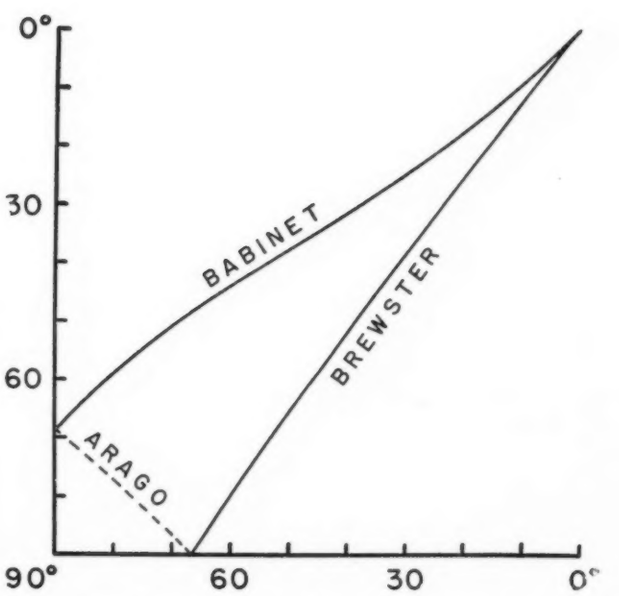

FIG. 3. Calculated positions of the neutral points for various angles of incidence for an atmosphere of optical thickness $\tau_1 = 0.20$. The abscissa and the ordinate have otherwise the same meanings as in fig. 1.

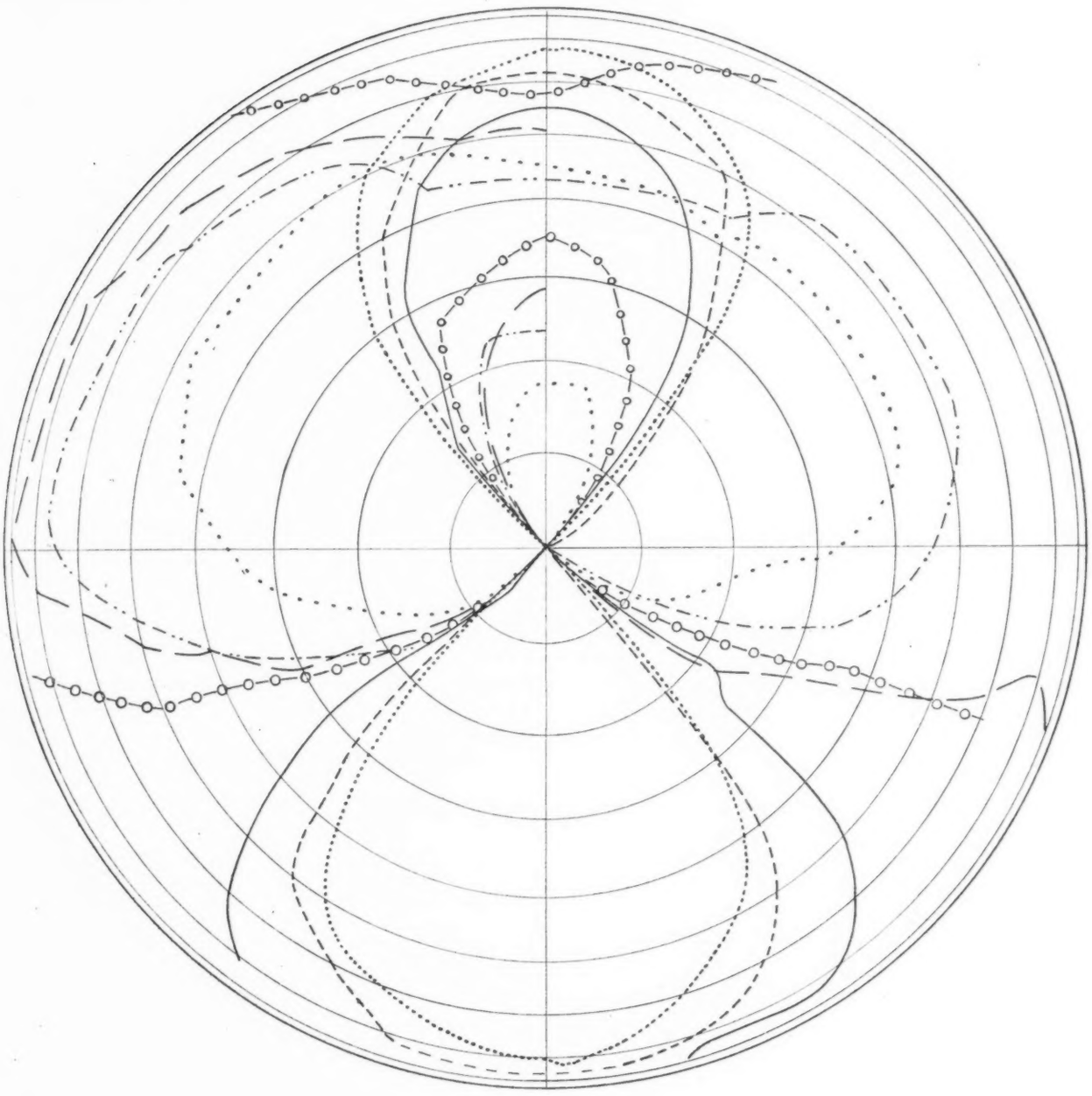

FIG. 4. Dorno's observations of the neutral lines on May 17, 1917, at Davos. The various curves were determined during the following times when the zenith distance of the sun varied by the amounts given:

.....	$7^p\,19$– $7^p\,28$	$\theta_0 = 87°\,10'$– $0°$
- - - - - - - -	$6^p\,13$– $6^p\,33$	$\theta_0 = 78°\,14'$–$81°\,30'$
————	$5^p\,14$– $5^p\,34$	$\theta_0 = 68°\,20'$–$71°\,44'$
–o–o–o–o–	$3^p\,15$– $3^p\,42$	$\theta_0 = 48°\,12'$–$52°\,40'$
— — — — —	$9^a\,9$– $9^a\,34$	$\theta_0 = 44°\,21'$–$40°\,33'$
— — · — — ·	$9^a\,44$–$10^a\,11$	$\theta_0 = 39°\,5'$–$35°\,26'$
.....	$12^p\,56$– $1^p\,14$	$\theta_0 = 29°\,50'$–$31°\,26'$

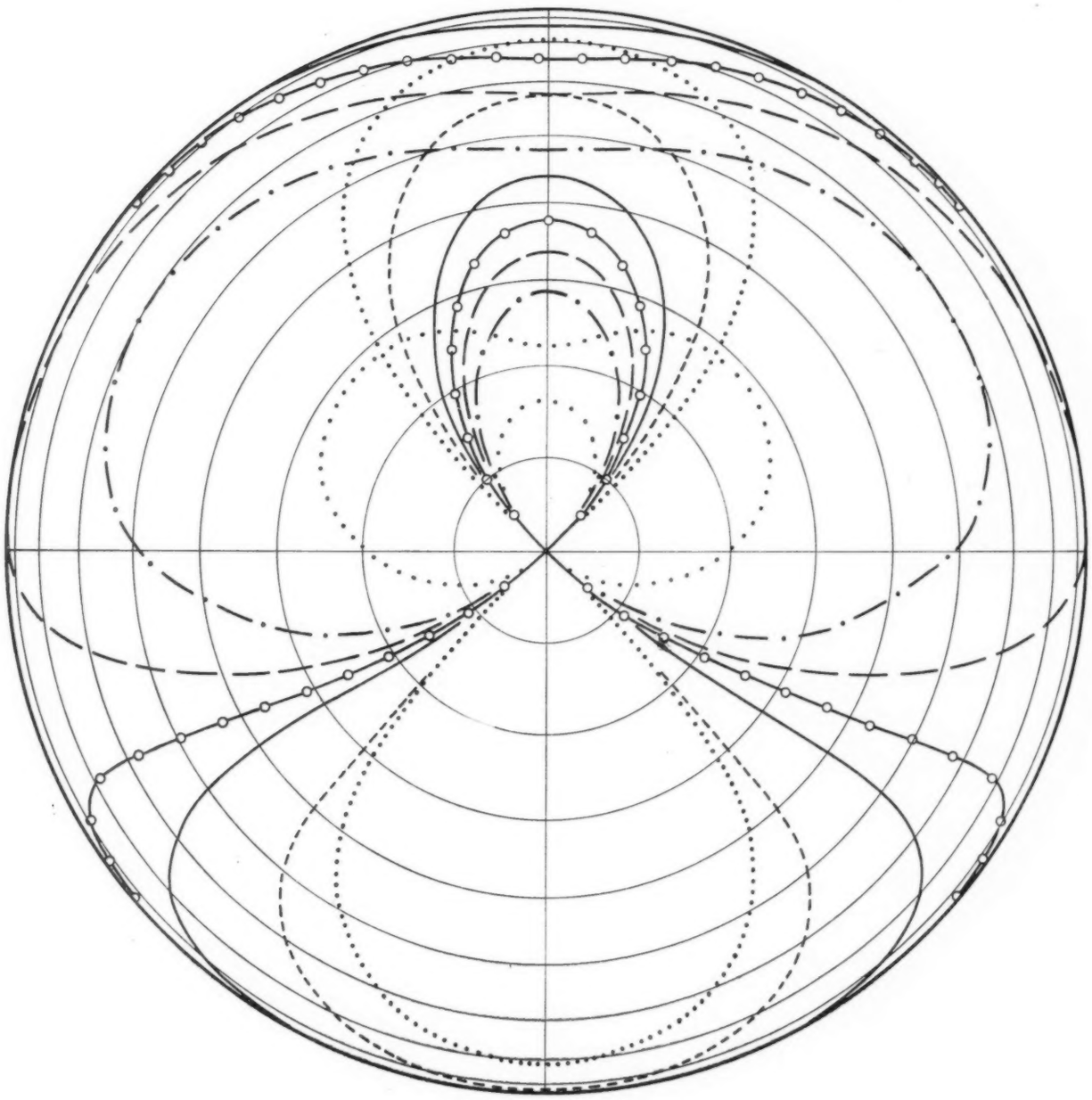

FIG. 5. The neutral lines as predicted by the theory. The various curves refer to the following zenith distances of the sun:

..... = 90°; ——— = 58.7°; — — — — = 43.9°;
- - - - - - - - - = 76.1°; –o–o–o–o– = 50.2°; —·—·— = 36.9°;
····· = 19.9°.

The curves in this figure which roughly correspond to Dorno's observations are marked similarly.

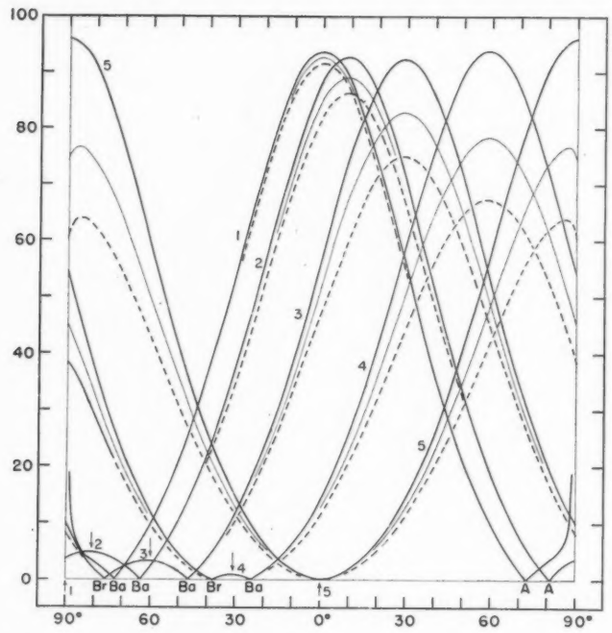

FIG. 6. Variation of the degree of polarization in the principal meridian for various angles of incidence for an atmosphere of optical thickness $\tau_1 = 0.10$. The abscissa gives the zenith distance and the ordinate gives the degree of polarization in per cent. The curves marked 1, 2, 3, 4, and 5 represent the variation for the angles of incidence $\theta_0 = 90°$, 80.8°, 60.0°, 30.7° and 0°, respectively. The thick solid curves are obtained before any ground corrections have been applied. The dashed curves are obtained if we allow for a ground reflecting according to Lambert's law with an albedo $\lambda_0 = 0.20$. The thin intermediate curves are obtained if $\lambda_0 = 0.10$. The positions of the neutral points are also indicated.

points of zero polarization should be contrasted with what should be expected on the laws of single scattering, namely that the polarization should tend to zero as we approach the direction towards the sun.

During the nineteenth century the existence of these neutral points and their behavior with the direction of the sun were regarded as among the most remarkable phenomena in meteorological optics. As such they were studied with great care and attention and by none more than Carl Dorno whose monumental work on the subject[7] contains a wealth of information painstakingly gathered. Dorno not only observed the neutral points on the principal meridian, but he also investigated in detail the continuation of these neutral points over the entire hemisphere along what he called the neutral lines. These lines separate the regions of positive from the regions of negative polarization;[8] they show a remarkable dependence on the direction of the sun. A diagram representing Dorno's principal results is reproduced in figure 4. It will be seen from this figure that when the sun is nearly on the horizon the neutral line connects the Babinet and the Arago points by a closed symmetrical curve of the shape of a lemniscate: this is the so-called lemniscate of Busch. As the sun rises the lemniscate becomes more and more asymmetrical and when the angle of incidence exceeds about 70° the lemniscate opens out and a part of the locus appears on the horizon below the sun and passes through the Brewster point which has now risen. The neutral line consists of two such separated curves until the angle of incidence becomes about 45° when the opposite ends join together to form a closed re-entrant curve. For still smaller angles of incidence the neutral line collapses towards the center and finally reduces to a point when the sun is at the zenith.

We shall now see how this entire range of phenomena associated with the neutral points and lines are faithfully reproduced by our calculations. In

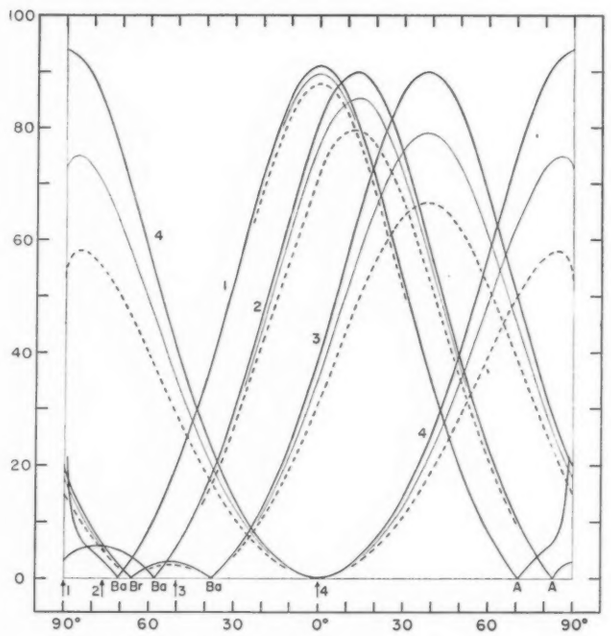

FIG. 7. Variation of the degree of polarization in the principal meridian for various angles of incidence for an atmosphere of optical thickness $\tau_1 = 0.15$. The abscissa gives the zenith distance and the ordinate gives the degree of polarization in per cent. The curves marked 1, 2, 3 and 4 represent the variation for the angles of incidence $\theta_0 = 90°$, 76.1°, 50.2° and 0°, respectively. The thick solid curves are obtained before any ground corrections have been applied. The dashed curves are obtained if we allow for a ground reflecting according to Lambert's law with an albedo $\lambda_0 = 20.5$. The thin intermediate curves are obtained if $\lambda_0 = 0.10$. The positions of the neutral points are also indicated.

[7] C. Dorno, Himmelshelligkeit, Himmelspolarisation und Sonnenintensität in Davos 1911 bis 1918, *Veröffentl. Preuss. Met. Inst.*, No. 303, Berlin, 1919.

[8] The polarization is assumed positive if I_l is less than I_r and negative if the reverse is true. On this convention the polarization is negative on the principal meridian between the neutral points of Babinet and Brewster; these points, therefore, separate the regions of positive from the regions of negative polarization on this meridian. The neutral lines of Dorno do the same for the entire hemisphere.

table 11 we have collected all the information contained in tables 5–10 regarding the points at which the polarization changes sign for various zenith distances of the sun; they are further illustrated in figures 1, 2, 3, and 5. Considering first figures 1–3 (which refer to the principal meridian), we observe that the calculations predict the occurrence of the neutral points as observed. In particular it will be noticed that the Brewster point sets when the angle of incidence is about 70°: its dependence on the values of the optical thickness in the range of interest is not pronounced. Also as the Brewster point sets the Arago point rises in the opposite sky. And as the sun sinks lower, the Arago point continues to rise until, when the sun sets, the Babinet and the Arago points are both at an equal

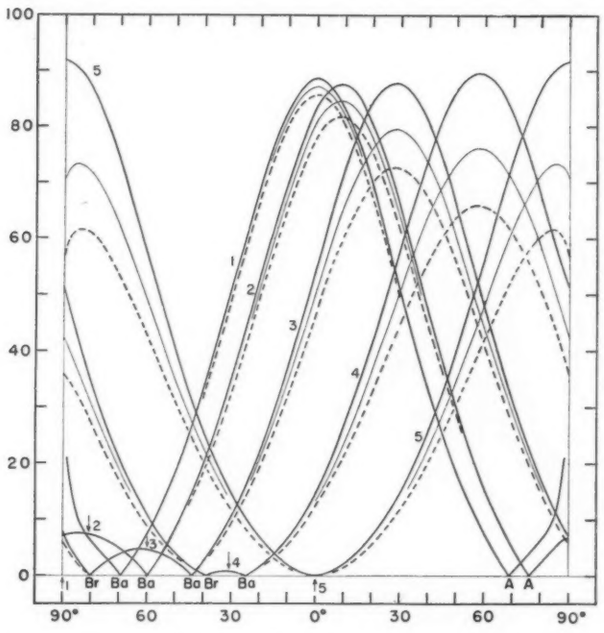

FIG. 8. Variation of the degree of polarization in the principal meridian for various angles of incidence for an atmosphere of optical thickness $\tau_1 = 0.20$. The abscissa gives the zenith distance and the ordinate gives the degree of polarization in per cent. The curves marked 1, 2, 3, 4, and 5 represent the variation for the angles of incidence $\theta_0 = 90°$, 80.8°, 60.0°, 30.7°, and 0°, respectively. The thick solid curves are obtained before any ground corrections have been applied. The dashed curves are obtained if we allow for a ground reflecting according to Lambert's law with an albedo $\lambda_0 = 0.20$. The thin intermediate curves are obtained if $\lambda_0 = 0.10$. The positions of the neutral points are also indicated.

elevation of about 20° (it varies from 17° to 21° for τ_1 in the range $0.10 \leqslant \tau_1 \leqslant 0.20$) from the horizon.

With the calculations for the different values of $\varphi_0 - \varphi$ for $\tau_1 = 0.15$ given in table 5, we can draw an entire system of calculated neutral lines. This has been done in figure 5. Comparing it with the results of Dorno's observations (fig. 4) we observe how well the two sets of curves match.

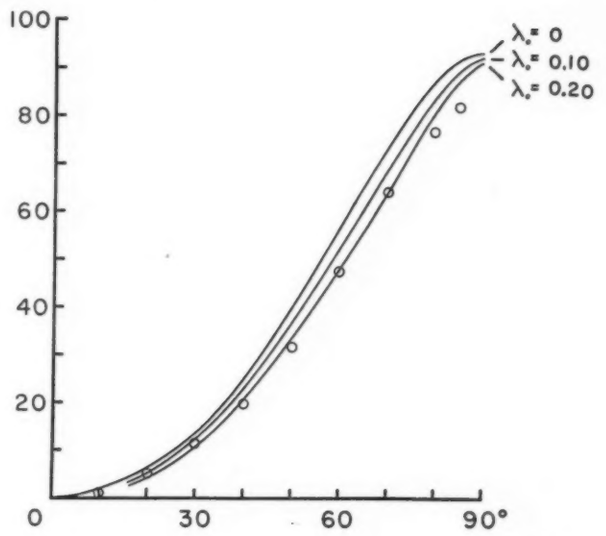

FIG. 9. Variation of the degree of polarization at the zenith for various angles of incidence and for an atmosphere of optical thickness $\tau_1 = 0.10$. The curve $\lambda_0 = 0$ allows for no ground reflection. The other two curves allow for reflection by a ground with the albedos indicated. The circles represent the observations of Tousey and Hulburt for values of τ_1 and λ_0 estimated at 0.10 and 0.20, respectively.

Turning next to the calculated degrees of polarization, we have illustrated its variation on the principal meridian for various angles of incidence and for the three values of the optical thickness for which calculations have been made in figures 6, 7, and 8. It will be noticed from these figures that the effect of a ground surface with an albedo even as high as 0.25 does not

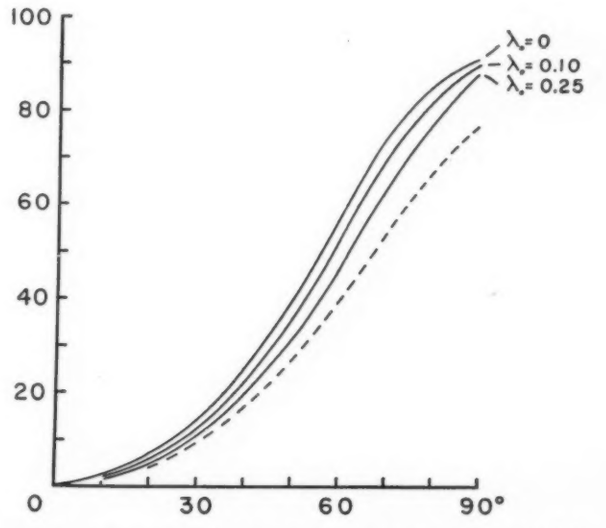

FIG. 10. Variation of the degree of polarization at the zenith for various angles of incidence and for an atmosphere of optical thickness $\tau_1 = 0.15$. The curve $\lambda_0 = 0$ allows for no ground reflection. The other two curves allow for reflection by a ground with the albedos indicated. The dashed curve represents the observations of Tichanowsky.

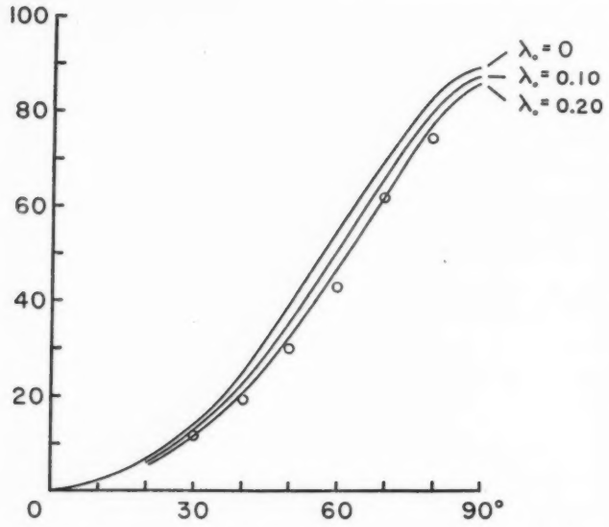

FIG. 11. Variation of the degree of polarization at the zenith for various angles of incidence and for an atmosphere of optical thickness $\tau_1 = 0.20$. The curve $\lambda_0 = 0$ allows for no ground reflection. The other two curves allow for reflection by a ground with the albedos indicated. The circles represent the observations of Richardson and Hulburt for a value of τ_1 estimated at 0.3.

make any essential difference to the predicted positions of the neutral points. This independence of the neutral points (and lines) on ground reflection is not difficult to understand. As is well known, the laws of Rayleigh scattering give the maximum polarization for the scattered light; all other laws give much less polarization. A ground reflecting according to Lambert's law can, therefore, hardly compete with Rayleigh scattering for producing polarization. The effect of reflection by the ground is therefore essentially one of adding a component of natural light to the polarized light already present. This last statement is, of course, not strictly true. The difference between γ_l and γ_r is precisely a measure of the polarization of the ground contribution to the sky brightness; but as is apparent from the tables the difference between γ_l and γ_r is generally very small. For these same reasons we should not expect that the direction of maximum polarization will be influenced by ground reflection. This is, indeed, the case: the direction of maximum polarization always occurs in a direction which is very nearly at right-angles to the direction of the sun. In contrast, ground reflection has a very pronounced effect on the *degree* of maximum polarization: In the absence of ground corrections, the maximum polarization varies between 94 and 89 per cent depending on τ_1 but is very nearly independent of the altitude of the sun (though there is a slight increase for higher altitudes). However, when the effect of ground reflection is taken into account the maximum polarization shows a very marked decrease with altitude. Observations do show such a behavior and we conclude that this is probably due to the effect of ground reflection.

Finally, in figures 9, 10, and 11 we have compared the degree of polarization at the zenith for various angles of incidence with the observations of Tichanowsky,[9] Tousey and Hulburt,[10] and Richardson and Hulburt.[11] It will be seen that the agreement between the theory and the observations is as good as one might expect.

In concluding this paper we should again like to record our thanks to Dr. Wallace Eckert and Miss Ann Franklin of the Watson Scientific Computing Laboratory for their generous co-operation in obtaining the solutions for the basic X- and Y-functions.

[9] J. J. Tichanowsky, Resultate der Messungen der Himmelspolarisation in verschiedenen Spektrumabschnitten, *Meteor. Ztschr.* **43**: 288, 1926.

[10] R. Tousey and E. O. Hulburt, Brightness and polarization of the daylight sky at various altitudes above sea level, *Jour. Opt. Soc. Amer.* **37**: 78, 1947.

[11] R. A. Richardson and E. O. Hulburt, Sky-brightness measurements near Bocaiuva, Brazil, *Jour. Geophys. Research* **54**: 215, 1949.

6. THE TABLES

ERRATUM

Page 686. For $\mu = 0.80$ and $(\mu_0 = 0.24; \varphi = 40°)$ for $I_l + I_r$
read 0.0323 instead of 0.0325

TABLE 1

THE FUNCTIONS $X_1(\mu)$, $Y_1(\mu)$: $X_r(\mu)$, $Y_r(\mu)$: $X^{(1)}(\mu)$, $Y^{(1)}(\mu)$; AND $X^{(2)}(\mu)$, $Y^{(2)}(\mu)$

FOR VARIOUS VALUES OF τ_1 OBTAINED BY ITERATING THE INTEGRAL EQUATIONS THEY SATISFY

$\tau_1 = 0.05$

μ	X_1	Y_1	X_r	Y_r	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$
0	1.00000	0	1.00000	0	1.00000	0	1.00000	0
0.01	1.04591	+0.01497	1.01618	0.01589	1.01825	0.01783	1.01135	0.01140
0.02	1.08187	+0.09608	1.02621	0.10059	1.02999	0.10421	1.01906	0.09710
0.03	1.11380	+0.20067	1.03282	0.21459	1.03779	0.21943	1.02427	0.20941
0.04	1.14350	+0.28965	1.03733	0.31749	1.04315	0.32318	1.02786	0.31103
0.05	1.17187	+0.35806	1.04057	0.40279	1.04700	0.40911	1.03045	0.39535
0.06	1.19940	+0.40893	1.04300	0.47251	1.04989	0.47930	1.03240	0.46432
0.07	1.22638	+0.44601	1.04488	0.52982	1.05213	0.53698	1.03391	0.52103
0.08	1.25297	+0.47246	1.04638	0.57744	1.05392	0.58490	1.03511	0.56817
0.09	1.27929	+0.49061	1.04760	0.61750	1.05538	0.62520	1.03610	0.60782
0.10	1.30541	+0.50226	1.04862	0.65159	1.05659	0.65948	1.03692	0.64157
0.11	1.33135	+0.50874	1.04947	0.68090	1.05761	0.68897	1.03760	0.67060
0.12	1.35719	+0.51102	1.05020	0.70636	1.05848	0.71457	1.03819	0.69581
0.13	1.38293	+0.50988	1.05083	0.72865	1.05923	0.73699	1.03870	0.71789
0.14	1.40858	+0.50592	1.05138	0.74833	1.05989	0.75678	1.03915	0.73739
0.15	1.43417	+0.49960	1.05187	0.76583	1.06047	0.77438	1.03954	0.75472
0.16	1.45969	+0.49130	1.05230	0.78148	1.06098	0.79011	1.03989	0.77022
0.17	1.48519	+0.48129	1.05268	0.79556	1.06144	0.80427	1.04020	0.78417
0.18	1.51064	+0.46984	1.05303	0.80829	1.06185	0.81707	1.04048	0.79679
0.19	1.53604	+0.45714	1.05334	0.81986	1.06222	0.82870	1.04073	0.80825
0.20	1.56145	+0.44333	1.05362	0.83041	1.06256	0.83932	1.04096	0.81870
0.21	1.58681	+0.42859	1.05388	0.84008	1.06287	0.84904	1.04117	0.82828
0.22	1.61215	+0.41300	1.05411	0.84897	1.06315	0.85797	1.04136	0.83709
0.23	1.63747	+0.39668	1.05433	0.85717	1.06341	0.86622	1.04153	0.84522
0.24	1.66277	+0.37970	1.05453	0.86476	1.06365	0.87384	1.04170	0.85274
0.25	1.68808	+0.36212	1.05472	0.87180	1.06387	0.88092	1.04185	0.85971
0.26	1.71336	+0.34402	1.05489	0.87835	1.06407	0.88751	1.04198	0.86620
0.27	1.73862	+0.32545	1.05505	0.88446	1.06427	0.89365	1.04211	0.87226
0.28	1.76388	+0.30645	1.05520	0.89018	1.06444	0.89939	1.04223	0.87792
0.29	1.78913	+0.28707	1.05533	0.89553	1.06461	0.90477	1.04235	0.88322
0.30	1.81436	+0.26734	1.05546	0.90055	1.06477	0.90983	1.04245	0.88820
0.31	1.83959	+0.24729	1.05559	0.90528	1.06491	0.91458	1.04255	0.89289
0.32	1.86482	+0.22694	1.05570	0.90973	1.06505	0.91906	1.04265	0.89730
0.33	1.89003	+0.20633	1.05581	0.91394	1.06518	0.92328	1.04273	0.90147
0.34	1.91525	+0.18547	1.05591	0.91791	1.06530	0.92728	1.04282	0.90541
0.35	1.94046	+0.16438	1.05601	0.92168	1.06542	0.93106	1.04289	0.90914
0.36	1.96567	+0.14308	1.05610	0.92525	1.06553	0.93465	1.04297	0.91267
0.37	1.99085	+0.12160	1.05619	0.92864	1.06563	0.93806	1.04304	0.91603
0.38	2.01604	+0.09993	1.05627	0.93186	1.06573	0.94130	1.04311	0.91923
0.39	2.04123	+0.07810	1.05635	0.93493	1.06582	0.94438	1.04317	0.92227
0.40	2.06643	+0.05611	1.05642	0.93785	1.06591	0.94732	1.04323	0.92517
0.41	2.09160	+0.03399	1.05649	0.94064	1.06600	0.95012	1.04329	0.92793
0.42	2.11678	+0.01173	1.05656	0.94331	1.06608	0.95280	1.04334	0.93057
0.43	2.14195	-0.01066	1.05663	0.94586	1.06615	0.95537	1.04340	0.93310
0.44	2.16712	-0.03316	1.05669	0.94830	1.06623	0.95782	1.04345	0.93551
0.45	2.19229	-0.05578	1.05675	0.95063	1.06630	0.96017	1.04349	0.93783
0.46	2.21748	-0.07851	1.05681	0.95287	1.06637	0.96242	1.04354	0.94005
0.47	2.24263	-0.10132	1.05686	0.95502	1.06643	0.96458	1.04358	0.94218
0.48	2.26780	-0.12422	1.05691	0.95709	1.06650	0.96665	1.04363	0.94423
0.49	2.29296	-0.14721	1.05696	0.95907	1.06656	0.96865	1.04367	0.94620
0.50	2.31812	-0.17029	1.05701	0.96098	1.06661	0.97057	1.04371	0.94809

TABLE 1 (continued)

$\tau_1 = 0.05$

μ	X_1	Y_1	X_r	Y_r	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$
0.51	2.34327	-0.19343	1.05706	0.96282	1.06667	0.97242	1.04374	0.94991
0.52	2.36843	-0.21665	1.05710	0.96459	1.06672	0.97420	1.04378	0.95167
0.53	2.39358	-0.23994	1.05714	0.96630	1.06677	0.97591	1.04381	0.95336
0.54	2.41873	-0.26329	1.05719	0.96795	1.06682	0.97757	1.04385	0.95499
0.55	2.44388	-0.28670	1.05723	0.96954	1.06687	0.97917	1.04388	0.95657
0.56	2.46903	-0.31017	1.05726	0.97107	1.06692	0.98071	1.04391	0.95809
0.57	2.49419	-0.33370	1.05730	0.97256	1.06696	0.98220	1.04394	0.95956
0.58	2.51933	-0.35728	1.05734	0.97399	1.06700	0.98364	1.04397	0.96098
0.59	2.54448	-0.38091	1.05737	0.97538	1.06705	0.98504	1.04400	0.96236
0.60	2.56961	-0.40457	1.05741	0.97673	1.06709	0.98639	1.04403	0.96369
0.61	2.59476	-0.42830	1.05744	0.97803	1.06713	0.98770	1.04405	0.96498
0.62	2.61990	-0.45206	1.05747	0.97929	1.06716	0.98897	1.04408	0.96623
0.63	2.64505	-0.47587	1.05750	0.98051	1.06720	0.99020	1.04410	0.96744
0.64	2.67018	-0.49971	1.05753	0.98170	1.06724	0.99139	1.04413	0.96862
0.65	2.69533	-0.52360	1.05756	0.98285	1.06727	0.99255	1.04415	0.96976
0.66	2.72047	-0.54752	1.05759	0.98397	1.06730	0.99367	1.04417	0.97087
0.67	2.74561	-0.57147	1.05762	0.98505	1.06734	0.99476	1.04420	0.97194
0.68	2.77075	-0.59546	1.05764	0.98611	1.06737	0.99582	1.04422	0.97299
0.69	2.79588	-0.61947	1.05767	0.98713	1.06740	0.99685	1.04424	0.97400
0.70	2.82102	-0.64352	1.05769	0.98813	1.06743	0.99785	1.04426	0.97499
0.71	2.84616	-0.66760	1.05772	0.98910	1.06746	0.99883	1.04428	0.97595
0.72	2.87129	-0.69170	1.05774	0.99004	1.06749	0.99978	1.04430	0.97689
0.73	2.89643	-0.71583	1.05776	0.99096	1.06751	1.00070	1.04432	0.97780
0.74	2.92156	-0.73999	1.05779	0.99186	1.06754	1.00160	1.04433	0.97869
0.75	2.94669	-0.76417	1.05781	0.99273	1.06757	1.00248	1.04435	0.97955
0.76	2.97182	-0.78837	1.05783	0.99358	1.06759	1.00333	1.04437	0.98039
0.77	2.99695	-0.81260	1.05785	0.99441	1.06762	1.00416	1.04439	0.98122
0.78	3.02209	-0.83685	1.05787	0.99521	1.06764	1.00497	1.04440	0.98202
0.79	3.04722	-0.86112	1.05789	0.99600	1.06766	1.00577	1.04442	0.98279
0.80	3.07235	-0.88541	1.05791	0.99677	1.06769	1.00654	1.04443	0.98356
0.81	3.09747	-0.90972	1.05793	0.99752	1.06771	1.00729	1.04445	0.98430
0.82	3.12260	-0.93405	1.05794	0.99825	1.06773	1.00803	1.04446	0.98503
0.83	3.14774	-0.95840	1.05796	0.99897	1.06775	1.00875	1.04448	0.98574
0.84	3.17286	-0.98276	1.05798	0.99967	1.06777	1.00945	1.04449	0.98643
0.85	3.19800	-1.00715	1.05800	1.00035	1.06779	1.01014	1.04451	0.98711
0.86	3.22313	-1.03155	1.05801	1.00102	1.06781	1.01081	1.04452	0.98777
0.87	3.24825	-1.05596	1.05803	1.00167	1.06783	1.01146	1.04453	0.98842
0.88	3.27338	-1.08039	1.05805	1.00231	1.06785	1.01211	1.04455	0.98905
0.89	3.29852	-1.10485	1.05806	1.00293	1.06787	1.01273	1.04456	0.98967
0.90	3.32364	-1.12930	1.05808	1.00355	1.06789	1.01335	1.04457	0.99027
0.91	3.34876	-1.15377	1.05809	1.00414	1.06791	1.01395	1.04458	0.99086
0.92	3.37388	-1.17826	1.05811	1.00473	1.06792	1.01454	1.04460	0.99145
0.93	3.39900	-1.20275	1.05812	1.00530	1.06794	1.01511	1.04461	0.99201
0.94	3.42413	-1.22727	1.05813	1.00586	1.06796	1.01568	1.04462	0.99257
0.95	3.44926	-1.25180	1.05815	1.00641	1.06797	1.01623	1.04463	0.99311
0.96	3.47438	-1.27633	1.05816	1.00695	1.06799	1.01677	1.04464	0.99365
0.97	3.49951	-1.30088	1.05817	1.00748	1.06800	1.01730	1.04465	0.99417
0.98	3.52465	-1.32545	1.05819	1.00799	1.06802	1.01782	1.04466	0.99468
0.99	3.54977	-1.35002	1.05820	1.00850	1.06804	1.01833	1.04467	0.99519
1.00	3.57488	-1.37459	1.05821	1.00900	1.06805	1.01883	1.04468	0.99568

TABLE 1 (continued)

$\tau_1 = 0.10$

μ	X_1	Y_1	X_2	Y_2	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$
0	1.00000	0	1.00000	0	1.00000	0	1.00000	0
0.01	1.04663	+0.00480	1.01651	0.00654	1.01882	0.00844	1.01162	0.00631
0.02	1.08343	+0.01715	1.02787	0.02068	1.03238	0.02455	1.02052	0.01976
0.03	1.11694	+0.05079	1.03697	0.05740	1.04338	0.06314	1.02796	0.05540
0.04	1.14836	+0.09873	1.04426	0.11104	1.05227	0.11841	1.03407	0.10788
0.05	1.17829	+0.14976	1.05013	0.17063	1.05946	0.17937	1.03905	0.16637
0.06	1.20713	+0.19771	1.05490	0.22964	1.06534	0.23951	1.04313	0.22437
0.07	1.23516	+0.24005	1.05883	0.28509	1.07019	0.29593	1.04652	0.27893
0.08	1.26259	+0.27607	1.06212	0.33597	1.07426	0.34762	1.04936	0.32903
0.09	1.28956	+0.30599	1.06489	0.38214	1.07770	0.39450	1.05178	0.37451
0.10	1.31615	+0.33034	1.06727	0.42385	1.08065	0.43682	1.05385	0.41562
0.11	1.34243	+0.34973	1.06932	0.46152	1.08321	0.47500	1.05565	0.45276
0.12	1.36849	+0.36476	1.07112	0.49557	1.08545	0.50951	1.05722	0.48633
0.13	1.39435	+0.37596	1.07269	0.52641	1.08741	0.54077	1.05861	0.51676
0.14	1.42005	+0.38381	1.07409	0.55445	1.08915	0.56917	1.05983	0.54441
0.15	1.44562	+0.38872	1.07534	0.57999	1.09071	0.59504	1.06093	0.56960
0.16	1.47107	+0.39107	1.07645	0.60334	1.09210	0.61868	1.06192	0.59265
0.17	1.49644	+0.39113	1.07747	0.62476	1.09337	0.64036	1.06281	0.61378
0.18	1.52173	+0.38919	1.07838	0.64444	1.09452	0.66030	1.06362	0.63321
0.19	1.54691	+0.38549	1.07921	0.66261	1.09556	0.67868	1.06436	0.65113
0.20	1.57206	+0.38020	1.07998	0.67941	1.09652	0.69568	1.06503	0.66771
0.21	1.59714	+0.37350	1.08067	0.69499	1.09740	0.71144	1.06565	0.68310
0.22	1.62218	+0.36552	1.08132	0.70947	1.09820	0.72610	1.06622	0.69739
0.23	1.64718	+0.35641	1.08192	0.72297	1.09895	0.73975	1.06675	0.71071
0.24	1.67214	+0.34628	1.08247	0.73557	1.09964	0.75249	1.06724	0.72315
0.25	1.69706	+0.33522	1.08298	0.74736	1.10029	0.76443	1.06769	0.73479
0.26	1.72195	+0.32331	1.08346	0.75842	1.10088	0.77561	1.06812	0.74571
0.27	1.74682	+0.31064	1.08390	0.76881	1.10144	0.78612	1.06852	0.75597
0.28	1.77165	+0.29726	1.08432	0.77859	1.10197	0.79601	1.06889	0.76563
0.29	1.79648	+0.28323	1.08472	0.78780	1.10246	0.80533	1.06924	0.77473
0.30	1.82126	+0.26865	1.08509	0.79652	1.10293	0.81414	1.06956	0.78332
0.31	1.84604	+0.25351	1.08544	0.80475	1.10336	0.82246	1.06987	0.79145
0.32	1.87082	+0.23786	1.08576	0.81254	1.10377	0.83036	1.07016	0.79915
0.33	1.89556	+0.22176	1.08607	0.81994	1.10416	0.83783	1.07044	0.80647
0.34	1.92029	+0.20525	1.08637	0.82696	1.10453	0.84494	1.07070	0.81340
0.35	1.94501	+0.18833	1.08665	0.83365	1.10488	0.85169	1.07095	0.82000
0.36	1.96972	+0.17105	1.08691	0.84001	1.10521	0.85812	1.07118	0.82628
0.37	1.99440	+0.15343	1.08717	0.84607	1.10552	0.86425	1.07140	0.83226
0.38	2.01910	+0.13550	1.08741	0.85185	1.10583	0.87010	1.07161	0.83798
0.39	2.04377	+0.11727	1.08763	0.85738	1.10610	0.87569	1.07182	0.84343
0.40	2.06843	+0.09877	1.08785	0.86266	1.10637	0.88103	1.07201	0.84865
0.41	2.09309	+0.08000	1.08805	0.86772	1.10663	0.88614	1.07219	0.85364
0.42	2.11774	+0.06100	1.08825	0.87257	1.10688	0.89104	1.07237	0.85843
0.43	2.14239	+0.04177	1.08844	0.87721	1.10712	0.89574	1.07254	0.86301
0.44	2.16701	+0.02233	1.08862	0.88167	1.10735	0.90024	1.07270	0.86741
0.45	2.19165	+0.00269	1.08880	0.88595	1.10757	0.90457	1.07285	0.87164
0.46	2.21627	-0.01714	1.08896	0.89006	1.10778	0.90873	1.07300	0.87570
0.47	2.24088	-0.03715	1.08913	0.89402	1.10798	0.91275	1.07314	0.87961
0.48	2.26549	-0.05733	1.08928	0.89783	1.10817	0.91659	1.07328	0.88338
0.49	2.29011	-0.07767	1.08943	0.90149	1.10836	0.92030	1.07341	0.88700
0.50	2.31471	-0.09815	1.08957	0.90503	1.10854	0.92387	1.07354	0.89049

TABLE 1 (continued)

$\tau_1 = 0.10$

μ	X_1	Y_1	X_r	Y_r	$x^{(1)}$	$y^{(1)}$	$x^{(2)}$	$y^{(2)}$
0.51	2.33931	-0.11879	1.08971	0.90844	1.10870	0.92732	1.07366	0.89386
0.52	2.36391	-0.13955	1.08984	0.91174	1.10887	0.93065	1.07378	0.89712
0.53	2.38849	-0.16044	1.08997	0.91492	1.10903	0.93386	1.07389	0.90026
0.54	2.41308	-0.18145	1.09010	0.91799	1.10919	0.93697	1.07400	0.90329
0.55	2.43766	-0.20257	1.09021	0.92096	1.10933	0.93997	1.07411	0.90623
0.56	2.46224	-0.22381	1.09033	0.92383	1.10948	0.94288	1.07421	0.90907
0.57	2.48681	-0.24515	1.09044	0.92662	1.10962	0.94569	1.07431	0.91182
0.58	2.51138	-0.26658	1.09055	0.92931	1.10975	0.94841	1.07440	0.91448
0.59	2.53595	-0.28812	1.09065	0.93192	1.10989	0.95105	1.07450	0.91706
0.60	2.56051	-0.30975	1.09076	0.93445	1.11001	0.95361	1.07458	0.91956
0.61	2.58508	-0.33146	1.09085	0.93691	1.11012	0.95609	1.07467	0.92199
0.62	2.60965	-0.35325	1.09095	0.93929	1.11024	0.95850	1.07476	0.92434
0.63	2.63420	-0.37512	1.09104	0.94160	1.11036	0.96083	1.07484	0.92662
0.64	2.65876	-0.39707	1.09113	0.94385	1.11047	0.96310	1.07492	0.92884
0.65	2.68330	-0.41909	1.09122	0.94603	1.11058	0.96531	1.07499	0.93100
0.66	2.70785	-0.44118	1.09130	0.94815	1.11069	0.96745	1.07507	0.93309
0.67	2.73241	-0.46334	1.09138	0.95021	1.11079	0.96954	1.07514	0.93513
0.68	2.75696	-0.48556	1.09146	0.95222	1.11089	0.97156	1.07521	0.93711
0.69	2.78151	-0.50784	1.09154	0.95417	1.11098	0.97354	1.07528	0.93904
0.70	2.80605	-0.53018	1.09162	0.95607	1.11108	0.97545	1.07535	0.94091
0.71	2.83047	-0.55252	1.09169	0.95792	1.11117	0.97732	1.07541	0.94274
0.72	2.85513	-0.57502	1.09176	0.95972	1.11126	0.97915	1.07547	0.94452
0.73	2.87967	-0.59752	1.09183	0.96148	1.11135	0.98092	1.07554	0.94626
0.74	2.90420	-0.62007	1.09190	0.96319	1.11143	0.98265	1.07560	0.94795
0.75	2.92874	-0.64267	1.09196	0.96486	1.11151	0.98434	1.07565	0.94960
0.76	2.95328	-0.66532	1.09203	0.96649	1.11159	0.98598	1.07571	0.95121
0.77	2.97781	-0.68801	1.09209	0.96807	1.11167	0.98759	1.07577	0.95278
0.78	3.00236	-0.71075	1.09215	0.96962	1.11175	0.98915	1.07582	0.95431
0.79	3.02687	-0.73352	1.09221	0.97114	1.11182	0.99068	1.07587	0.95580
0.80	3.05141	-0.75634	1.09227	0.97262	1.11190	0.99218	1.07592	0.95726
0.81	3.07593	-0.77919	1.09233	0.97406	1.11197	0.99364	1.07597	0.95869
0.82	3.10044	-0.80207	1.09238	0.97547	1.11204	0.99506	1.07602	0.96008
0.83	3.12498	-0.82501	1.09244	0.97685	1.11211	0.99645	1.07607	0.96144
0.84	3.14950	-0.84796	1.09249	0.97820	1.11217	0.99782	1.07612	0.96278
0.85	3.17403	-0.87096	1.09254	0.97951	1.11224	0.99915	1.07616	0.96408
0.86	3.19856	-0.89399	1.09259	0.98080	1.11230	1.00045	1.07621	0.96535
0.87	3.22308	-0.91705	1.09264	0.98206	1.11236	1.00173	1.07625	0.96660
0.88	3.24760	-0.94014	1.09269	0.98330	1.11242	1.00297	1.07630	0.96782
0.89	3.27214	-0.96327	1.09274	0.98451	1.11248	1.00419	1.07634	0.96901
0.90	3.29663	-0.98641	1.09278	0.98569	1.11254	1.00539	1.07638	0.97018
0.91	3.32115	-1.00959	1.09283	0.98685	1.11260	1.00656	1.07642	0.97132
0.92	3.34567	-1.03279	1.09287	0.98798	1.11265	1.00770	1.07646	0.97244
0.93	3.37019	-1.05602	1.09291	0.98909	1.11271	1.00883	1.07650	0.97354
0.94	3.39471	-1.07927	1.09296	0.99018	1.11276	1.00993	1.07653	0.97462
0.95	3.41923	-1.10256	1.09300	0.99125	1.11281	1.01100	1.07657	0.97567
0.96	3.44373	-1.12585	1.09304	0.99229	1.11286	1.01206	1.07661	0.97670
0.97	3.46825	-1.14918	1.09308	0.99332	1.11291	1.01310	1.07664	0.97772
0.98	3.49278	-1.17254	1.09312	0.99432	1.11296	1.01411	1.07668	0.97871
0.99	3.51728	-1.19591	1.09316	0.99531	1.11301	1.01511	1.07671	0.97968
1.00	3.54180	-1.21930	1.09320	0.99628	1.11306	1.01609	1.07674	0.98064

TABLE 1 (continued)

$\tau_1 = 0.15$

μ	X_l	Y_l	X_r	Y_r	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$
0	1.00000	0	1.00000	0	1.00000	0	1.00000	0
0.01	1.04716	+0.00302	1.01661	0.00515	1.01920	0.00697	1.01160	0.00544
0.02	1.08394	+0.00757	1.02843	0.01150	1.03811	0.01528	1.02095	0.01183
0.03	1.11766	+0.01821	1.03810	0.02412	1.04496	0.02989	1.02899	0.02420
0.04	1.14954	+0.03881	1.04636	0.04760	1.05524	0.05531	1.03609	0.04718
0.05	1.18007	+0.06714	1.05343	0.08045	1.06412	0.08995	1.04232	0.07936
0.06	1.20955	+0.09923	1.05949	0.11893	1.07180	0.13003	1.04774	0.11713
0.07	1.23820	+0.13189	1.06473	0.15985	1.07846	0.17238	1.05245	0.15732
0.08	1.26618	+0.16310	1.06926	0.20105	1.08425	0.21487	1.05657	0.19783
0.09	1.29365	+0.19174	1.07322	0.24123	1.08931	0.25620	1.06019	0.23735
0.10	1.32066	+0.21734	1.07669	0.27971	1.09376	0.29570	1.06338	0.27522
0.11	1.34731	+0.23971	1.07976	0.31612	1.09771	0.33302	1.06622	0.31106
0.12	1.37366	+0.25887	1.08248	0.35035	1.10122	0.36808	1.06874	0.34477
0.13	1.39975	+0.27498	1.08493	0.38241	1.10436	0.40088	1.07099	0.37633
0.14	1.42565	+0.28822	1.08712	0.41237	1.10718	0.43150	1.07303	0.40583
0.15	1.45134	+0.29881	1.08909	0.44034	1.10974	0.46007	1.07487	0.43339
0.16	1.47690	+0.30696	1.09089	0.46646	1.11206	0.48675	1.07655	0.45913
0.17	1.50229	+0.31288	1.09253	0.49086	1.11417	0.51166	1.07808	0.48318
0.18	1.52759	+0.31676	1.09403	0.51368	1.11610	0.53495	1.07948	0.50566
0.19	1.55279	+0.31877	1.09540	0.53505	1.11788	0.55674	1.08076	0.52671
0.20	1.57788	+0.31910	1.09667	0.55506	1.11952	0.57715	1.08194	0.54645
0.21	1.60288	+0.31788	1.09785	0.57385	1.12103	0.59631	1.08304	0.56497
0.22	1.62783	+0.31523	1.09892	0.59151	1.12243	0.61431	1.08405	0.58237
0.23	1.65272	+0.31129	1.09993	0.60813	1.12374	0.63125	1.08500	0.59876
0.24	1.67755	+0.30614	1.10087	0.62379	1.12495	0.64720	1.08588	0.61420
0.25	1.70233	+0.29992	1.10174	0.63857	1.12608	0.66226	1.08670	0.62877
0.26	1.72706	+0.29270	1.10256	0.65254	1.12714	0.67649	1.08747	0.64254
0.27	1.75176	+0.28454	1.10333	0.66576	1.12815	0.68995	1.08819	0.65557
0.28	1.77639	+0.27553	1.10405	0.67828	1.12908	0.70270	1.08887	0.66793
0.29	1.80100	+0.26574	1.10473	0.69016	1.12995	0.71479	1.08951	0.67964
0.30	1.82559	+0.25522	1.10537	0.70144	1.13079	0.72628	1.09012	0.69076
0.31	1.85017	+0.24400	1.10598	0.71217	1.13157	0.73721	1.09068	0.70134
0.32	1.87470	+0.23216	1.10655	0.72237	1.13231	0.74760	1.09122	0.71141
0.33	1.89919	+0.21976	1.10709	0.73211	1.13302	0.75750	1.09173	0.72100
0.34	1.92368	+0.20679	1.10760	0.74139	1.13368	0.76696	1.09222	0.73016
0.35	1.94814	+0.19332	1.10810	0.75026	1.13432	0.77597	1.09267	0.73891
0.36	1.97259	+0.17938	1.10856	0.75873	1.13492	0.78460	1.09311	0.74726
0.37	1.99702	+0.16498	1.10900	0.76683	1.13550	0.79285	1.09353	0.75525
0.38	2.02142	+0.15017	1.10942	0.77460	1.13604	0.80075	1.09393	0.76291
0.39	2.04580	+0.13498	1.10983	0.78204	1.13657	0.80832	1.09431	0.77025
0.40	2.07020	+0.11942	1.11021	0.78917	1.13707	0.81557	1.09468	0.77728
0.41	2.09456	+0.10351	1.11058	0.79603	1.13754	0.82255	1.09503	0.78404
0.42	2.11891	+0.08728	1.11092	0.80261	1.13800	0.82924	1.09536	0.79053
0.43	2.14324	+0.07074	1.11126	0.80893	1.13844	0.83568	1.09567	0.79676
0.44	2.16757	+0.05392	1.11159	0.81502	1.13887	0.84188	1.09598	0.80279
0.45	2.19189	+0.03682	1.11190	0.82089	1.13927	0.84784	1.09628	0.80857
0.46	2.21622	+0.01946	1.11220	0.82654	1.13966	0.85358	1.09656	0.81414
0.47	2.24052	+0.00186	1.11249	0.83198	1.14003	0.85912	1.09683	0.81951
0.48	2.26482	-0.01597	1.11276	0.83723	1.14038	0.86447	1.09709	0.82469
0.49	2.28909	-0.03401	1.11303	0.84231	1.14073	0.86962	1.09735	0.82969
0.50	2.31337	-0.05227	1.11328	0.84721	1.14107	0.87460	1.09759	0.83452

TABLE 1 (continued)

$\tau_1 = 0.15$

μ	X_1	Y_1	X_r	Y_r	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$
0.51	2.33763	-0.07072	1.11353	0.85194	1.14139	0.87941	1.09782	0.83919
0.52	2.36189	-0.08936	1.11377	0.85651	1.14170	0.88408	1.09805	0.84371
0.53	2.38614	-0.10817	1.11400	0.86094	1.14200	0.88858	1.09827	0.84808
0.54	2.41040	-0.12716	1.11422	0.86523	1.14229	0.89294	1.09848	0.85231
0.55	2.43464	-0.14631	1.11444	0.86939	1.14257	0.89716	1.09868	0.85640
0.56	2.45889	-0.16562	1.11464	0.87341	1.14283	0.90125	1.09888	0.86037
0.57	2.48312	-0.18506	1.11484	0.87731	1.14310	0.90522	1.09907	0.86422
0.58	2.50735	-0.20466	1.11504	0.88109	1.14335	0.90906	1.09926	0.86795
0.59	2.53158	-0.22438	1.11523	0.88476	1.14360	0.91280	1.09944	0.87157
0.60	2.55580	-0.24424	1.11541	0.88832	1.14384	0.91642	1.09961	0.87509
0.61	2.58000	-0.26420	1.11558	0.89178	1.14406	0.91993	1.09977	0.87850
0.62	2.60420	-0.28429	1.11576	0.89515	1.14429	0.92335	1.09993	0.88182
0.63	2.62843	-0.30451	1.11593	0.89842	1.14451	0.92668	1.10009	0.88504
0.64	2.65263	-0.32482	1.11609	0.90159	1.14472	0.92991	1.10025	0.88818
0.65	2.67684	-0.34524	1.11625	0.90468	1.14492	0.93305	1.10040	0.89122
0.66	2.70100	-0.36574	1.11640	0.90769	1.14511	0.93611	1.10054	0.89419
0.67	2.72519	-0.38636	1.11655	0.91062	1.14531	0.93908	1.10068	0.89708
0.68	2.74936	-0.40706	1.11670	0.91347	1.14550	0.94198	1.10082	0.89989
0.69	2.77358	-0.42786	1.11684	0.91624	1.14568	0.94480	1.10095	0.90263
0.70	2.79776	-0.44873	1.11698	0.91895	1.14586	0.94756	1.10109	0.90530
0.71	2.82191	-0.46967	1.11712	0.92159	1.14604	0.95024	1.10120	0.90791
0.72	2.84609	-0.49071	1.11725	0.92416	1.14621	0.95286	1.10133	0.91045
0.73	2.87028	-0.51183	1.11737	0.92667	1.14637	0.95540	1.10145	0.91293
0.74	2.89445	-0.53301	1.11750	0.92911	1.14654	0.95789	1.10156	0.91534
0.75	2.91862	-0.55426	1.11762	0.93150	1.14669	0.96032	1.10168	0.91770
0.76	2.94275	-0.57556	1.11774	0.93383	1.14685	0.96269	1.10179	0.92000
0.77	2.96691	-0.59695	1.11785	0.93611	1.14700	0.96500	1.10190	0.92224
0.78	2.99108	-0.61840	1.11797	0.93833	1.14714	0.96726	1.10200	0.92444
0.79	3.01525	-0.63991	1.11808	0.94050	1.14729	0.96947	1.10211	0.92658
0.80	3.03940	-0.66147	1.11818	0.94263	1.14743	0.97163	1.10221	0.92868
0.81	3.06352	-0.68308	1.11829	0.94470	1.14754	0.97374	1.10231	0.93073
0.82	3.08767	-0.70476	1.11839	0.94673	1.14768	0.97580	1.10240	0.93273
0.83	3.11183	-0.72649	1.11849	0.94872	1.14781	0.97782	1.10250	0.93469
0.84	3.13599	-0.74828	1.11859	0.95066	1.14793	0.97979	1.10259	0.93660
0.85	3.16012	-0.77010	1.11869	0.95256	1.14806	0.98172	1.10268	0.93848
0.86	3.18427	-0.79198	1.11878	0.95442	1.14818	0.98361	1.10277	0.94032
0.87	3.20843	-0.81391	1.11887	0.95624	1.14830	0.98546	1.10286	0.94211
0.88	3.23256	-0.83588	1.11896	0.95802	1.14842	0.98727	1.10294	0.94387
0.89	3.25671	-0.85789	1.11905	0.95977	1.14853	0.98905	1.10302	0.94559
0.90	3.28086	-0.87995	1.11913	0.96148	1.14864	0.99079	1.10310	0.94728
0.91	3.30499	-0.90204	1.11922	0.96315	1.14875	0.99249	1.10318	0.94894
0.92	3.32914	-0.92418	1.11930	0.96479	1.14886	0.99416	1.10326	0.95056
0.93	3.35328	-0.94636	1.11938	0.96640	1.14896	0.99579	1.10334	0.95214
0.94	3.37741	-0.96857	1.11946	0.96798	1.14906	0.99740	1.10341	0.95370
0.95	3.40155	-0.99082	1.11954	0.96953	1.14916	0.99897	1.10349	0.95523
0.96	3.42569	-1.01311	1.11961	0.97105	1.14926	1.00051	1.10356	0.95673
0.97	3.44982	-1.03543	1.11969	0.97254	1.14936	1.00202	1.10363	0.95820
0.98	3.47396	-1.05778	1.11976	0.97400	1.14945	1.00351	1.10370	0.95964
0.99	3.49809	-1.08016	1.11983	0.97543	1.14955	1.00496	1.10376	0.96105
1.00	3.52222	-1.10258	1.11990	0.97684	1.14964	1.00639	1.10383	0.96244

TABLE 1 (continued)

$\tau_1 = 0.20$

μ	X_1	Y_1	X_r	Y_r	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$
0	1.00000	0	1.00000	0	1.00000	0	1.00000	0
0.01	1.04671	+0.00227	1.01694	0.00429	1.01934	0.00595	1.01195	0.00488
0.02	1.08379	+0.00516	1.02870	0.00909	1.03351	0.01265	1.02125	0.01013
0.03	1.11772	+0.00977	1.03857	0.01558	1.04572	0.02116	1.02952	0.01688
0.04	1.14980	+0.01881	1.04718	0.02675	1.05657	0.03435	1.03702	0.02812
0.05	1.18060	+0.03346	1.05479	0.04425	1.06628	0.05384	1.04383	0.04549
0.06	1.21041	+0.05282	1.06152	0.06756	1.07497	0.07900	1.04999	0.06852
0.07	1.23941	+0.07504	1.06751	0.09508	1.08274	0.10828	1.05553	0.09568
0.08	1.26775	+0.09846	1.07284	0.12523	1.08967	0.14003	1.06053	0.12540
0.09	1.29552	+0.12181	1.07760	0.15668	1.09590	0.17296	1.06502	0.15641
0.10	1.32283	+0.14419	1.08186	0.18847	1.10149	0.20612	1.06908	0.18775
0.11	1.34974	+0.16505	1.08569	0.21994	1.10653	0.23884	1.07274	0.21878
0.12	1.37632	+0.18406	1.08915	0.25066	1.11109	0.27071	1.07607	0.24907
0.13	1.40259	+0.20106	1.09228	0.28037	1.11524	0.30146	1.07909	0.27834
0.14	1.42865	+0.21599	1.09513	0.30889	1.11900	0.33096	1.08184	0.30647
0.15	1.45449	+0.22886	1.09773	0.33616	1.12244	0.35913	1.08437	0.33335
0.16	1.48014	+0.23976	1.10011	0.36217	1.12560	0.38596	1.08668	0.35899
0.17	1.50564	+0.24873	1.10230	0.38691	1.12850	0.41146	1.08881	0.38339
0.18	1.53099	+0.25591	1.10432	0.41043	1.13118	0.43569	1.09079	0.40658
0.19	1.55621	+0.26138	1.10619	0.43276	1.13367	0.45868	1.09261	0.42860
0.20	1.58136	+0.26523	1.10791	0.45397	1.13596	0.48049	1.09431	0.44951
0.21	1.60637	+0.26762	1.10952	0.47411	1.13810	0.50121	1.09588	0.46938
0.22	1.63131	+0.26860	1.11102	0.49324	1.14009	0.52087	1.09735	0.48824
0.23	1.65615	+0.26828	1.11241	0.51142	1.14195	0.53955	1.09873	0.50618
0.24	1.68096	+0.26673	1.11372	0.52871	1.14369	0.55732	1.10002	0.52323
0.25	1.70568	+0.26405	1.11494	0.54516	1.14532	0.57422	1.10124	0.53945
0.26	1.73033	+0.26034	1.11609	0.56083	1.14686	0.59030	1.10236	0.55491
0.27	1.75496	+0.25562	1.11718	0.57576	1.14831	0.60562	1.10343	0.56963
0.28	1.77950	+0.24999	1.11820	0.59000	1.14967	0.62023	1.10444	0.58368
0.29	1.80402	+0.24351	1.11916	0.60359	1.15096	0.63417	1.10540	0.59708
0.30	1.82850	+0.23621	1.12008	0.61656	1.15218	0.64748	1.10631	0.60988
0.31	1.85293	+0.22818	1.12094	0.62897	1.15333	0.66020	1.10715	0.62213
0.32	1.87735	+0.21942	1.12176	0.64084	1.15443	0.67237	1.10797	0.63383
0.33	1.90171	+0.21002	1.12254	0.65221	1.15547	0.68402	1.10874	0.64504
0.34	1.92604	+0.20000	1.12328	0.66309	1.15646	0.69519	1.10948	0.65578
0.35	1.95037	+0.18939	1.12398	0.67353	1.15740	0.70589	1.11018	0.66608
0.36	1.97467	+0.17824	1.12465	0.68356	1.15830	0.71616	1.11082	0.67596
0.37	1.99894	+0.16657	1.12529	0.69317	1.15915	0.72602	1.11146	0.68545
0.38	2.02316	+0.15443	1.12590	0.70242	1.15997	0.73548	1.11207	0.69458
0.39	2.04739	+0.14181	1.12649	0.71130	1.16075	0.74459	1.11266	0.70335
0.40	2.07160	+0.12878	1.12705	0.71985	1.16150	0.75336	1.11322	0.71178
0.41	2.09579	+0.11532	1.12759	0.72809	1.16222	0.76179	1.11375	0.71990
0.42	2.11996	+0.10149	1.12810	0.73603	1.16291	0.76992	1.11427	0.72773
0.43	2.14412	+0.08729	1.12859	0.74368	1.16357	0.77775	1.11476	0.73529
0.44	2.16825	+0.07276	1.12906	0.75105	1.16421	0.78531	1.11523	0.74257
0.45	2.19240	+0.05788	1.12952	0.75818	1.16482	0.79260	1.11569	0.74959
0.46	2.21649	+0.04270	1.12996	0.76506	1.16540	0.79965	1.11611	0.75638
0.47	2.24060	+0.02723	1.13038	0.77171	1.16598	0.80645	1.11653	0.76294
0.48	2.26469	+0.01147	1.13079	0.77813	1.16652	0.81304	1.11694	0.76928
0.49	2.28878	-0.00456	1.13118	0.78435	1.16704	0.81940	1.11733	0.77542
0.50	2.31283	-0.02082	1.13155	0.79036	1.16755	0.82556	1.11771	0.78135

TABLE 1 (continued)

$\tau_1 = 0.20$

μ	X_1	Y_1	X_r	Y_r	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$
0.51	2.33689	-0.03734	1.13192	0.79619	1.16804	0.83152	1.11808	0.78710
0.52	2.36094	-0.05410	1.13227	0.80184	1.16851	0.83730	1.11843	0.79267
0.53	2.38499	-0.07107	1.13262	0.80731	1.16896	0.84290	1.11877	0.79806
0.54	2.40902	-0.08824	1.13294	0.81261	1.16941	0.84833	1.11910	0.80330
0.55	2.43303	-0.10561	1.13326	0.81776	1.16983	0.85359	1.11942	0.80837
0.56	2.45704	-0.12319	1.13357	0.82275	1.17025	0.85871	1.11972	0.81331
0.57	2.48104	-0.14093	1.13387	0.82761	1.17065	0.86367	1.12002	0.81809
0.58	2.50503	-0.15886	1.13416	0.83231	1.17104	0.86849	1.12031	0.82274
0.59	2.52903	-0.17696	1.13444	0.83689	1.17142	0.87317	1.12059	0.82726
0.60	2.55302	-0.19522	1.13472	0.84134	1.17178	0.87772	1.12086	0.83164
0.61	2.57698	-0.21362	1.13497	0.84567	1.17214	0.88215	1.12113	0.83592
0.62	2.60095	-0.23218	1.13523	0.84988	1.17248	0.88646	1.12139	0.84008
0.63	2.62492	-0.25088	1.13548	0.85397	1.17281	0.89065	1.12164	0.84412
0.64	2.64888	-0.26971	1.13572	0.85797	1.17314	0.89473	1.12188	0.84805
0.65	2.67285	-0.28868	1.13596	0.86185	1.17345	0.89870	1.12212	0.85188
0.66	2.69680	-0.30777	1.13618	0.86563	1.17376	0.90258	1.12232	0.85561
0.67	2.72075	-0.32698	1.13641	0.86931	1.17405	0.90635	1.12255	0.85925
0.68	2.74468	-0.34630	1.13663	0.87291	1.17435	0.91002	1.12277	0.86280
0.69	2.76860	-0.36574	1.13683	0.87642	1.17463	0.91360	1.12298	0.86626
0.70	2.79255	-0.38530	1.13704	0.87983	1.17490	0.91711	1.12318	0.86963
0.71	2.81648	-0.40494	1.13724	0.88317	1.17517	0.92051	1.12338	0.87292
0.72	2.84043	-0.42471	1.13743	0.88642	1.17543	0.92384	1.12358	0.87613
0.73	2.86435	-0.44455	1.13762	0.88961	1.17569	0.92710	1.12377	0.87927
0.74	2.88827	-0.46450	1.13781	0.89271	1.17594	0.93027	1.12396	0.88233
0.75	2.91220	-0.48453	1.13799	0.89574	1.17618	0.93337	1.12414	0.88532
0.76	2.93611	-0.50465	1.13816	0.89870	1.17641	0.93640	1.12432	0.88824
0.77	2.96003	-0.52485	1.13834	0.90160	1.17665	0.93936	1.12449	0.89110
0.78	2.98394	-0.54514	1.13851	0.90443	1.17687	0.94226	1.12466	0.89389
0.79	3.00784	-0.56550	1.13867	0.90720	1.17709	0.94508	1.12482	0.89662
0.80	3.03174	-0.58594	1.13883	0.90990	1.17731	0.94785	1.12498	0.89929
0.81	3.05563	-0.60644	1.13899	0.91255	1.17752	0.95056	1.12513	0.90190
0.82	3.07952	-0.62703	1.13913	0.91514	1.17772	0.95321	1.12528	0.90446
0.83	3.10342	-0.64768	1.13929	0.91767	1.17792	0.95580	1.12544	0.90696
0.84	3.12730	-0.66840	1.13943	0.92016	1.17812	0.95834	1.12558	0.90941
0.85	3.15120	-0.68918	1.13958	0.92259	1.17830	0.96082	1.12573	0.91181
0.86	3.17506	-0.71002	1.13972	0.92497	1.17849	0.96326	1.12587	0.91415
0.87	3.19896	-0.73092	1.13985	0.92730	1.17868	0.96565	1.12600	0.91646
0.88	3.22285	-0.75190	1.13999	0.92959	1.17886	0.96798	1.12614	0.91871
0.89	3.24672	-0.77291	1.14012	0.93183	1.17903	0.97027	1.12627	0.92092
0.90	3.27063	-0.79400	1.14025	0.93402	1.17920	0.97251	1.12640	0.92308
0.91	3.29449	-0.81512	1.14037	0.93618	1.17938	0.97472	1.12653	0.92521
0.92	3.31836	-0.83629	1.14049	0.93829	1.17954	0.97687	1.12665	0.92729
0.93	3.34225	-0.85754	1.14062	0.94036	1.17970	0.97899	1.12677	0.92933
0.94	3.36612	-0.87882	1.14074	0.94239	1.17986	0.98106	1.12689	0.93134
0.95	3.39002	-0.90016	1.14085	0.94438	1.18002	0.98310	1.12701	0.93330
0.96	3.41390	-0.92154	1.14097	0.94633	1.18017	0.98509	1.12712	0.93523
0.97	3.43776	-0.94296	1.14107	0.94825	1.18031	0.98705	1.12724	0.93712
0.98	3.46163	-0.96442	1.14118	0.95013	1.18046	0.98898	1.12735	0.93898
0.99	3.48548	-0.98592	1.14129	0.95198	1.18061	0.99087	1.12745	0.94080
1.00	3.50934	-1.00747	1.14140	0.95379	1.18075	0.99273	1.12756	0.94259

TABLE 1 (continued)

$\tau_1 = 0.25$

μ	X_1	Y_1	X_r	Y_r	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$
0	1.00000	0	1.00000	0	1.00000	0	1.00000	0
0.01	1.04660	+0.00208	1.01692	0.00369	1.01956	0.00542	1.01208	0.00447
0.02	1.08369	+0.00410	1.02877	0.00773	1.03392	0.01124	1.02150	0.00921
0.03	1.11769	+0.00668	1.03875	0.01236	1.04636	0.01782	1.02990	0.01445
0.04	1.14994	+0.01127	1.04754	0.01884	1.05748	0.02630	1.03760	0.02140
0.05	1.18089	+0.01905	1.05544	0.02877	1.06759	0.03823	1.04472	0.03164
0.06	1.21080	+0.03043	1.06254	0.04288	1.07681	0.05430	1.05129	0.04589
0.07	1.23994	+0.04478	1.06897	0.06090	1.08525	0.07421	1.05734	0.06392
0.08	1.26842	+0.06129	1.07478	0.08205	1.09293	0.09719	1.06292	0.08499
0.09	1.29636	+0.07896	1.08006	0.10548	1.09995	0.12234	1.06803	0.10827
0.10	1.32386	+0.09697	1.08486	0.13037	1.10636	0.14885	1.07272	0.13298
0.11	1.35097	+0.11468	1.08923	0.15608	1.11223	0.17607	1.07702	0.15845
0.12	1.37774	+0.13163	1.09323	0.18209	1.11760	0.20349	1.08098	0.18420
0.13	1.40421	+0.14751	1.09688	0.20801	1.12254	0.23072	1.08463	0.20985
0.14	1.43041	+0.16212	1.10025	0.23356	1.12709	0.25751	1.08800	0.23513
0.15	1.45638	+0.17531	1.10335	0.25856	1.13129	0.28366	1.09112	0.25986
0.16	1.48215	+0.18704	1.10620	0.28287	1.13517	0.30905	1.09400	0.28391
0.17	1.50772	+0.19730	1.10886	0.30643	1.13877	0.33362	1.09667	0.30720
0.18	1.53313	+0.20611	1.11131	0.32917	1.14211	0.35731	1.09917	0.32968
0.19	1.55843	+0.21346	1.11360	0.35108	1.14522	0.38011	1.10149	0.35134
0.20	1.58359	+0.21940	1.11572	0.37215	1.14812	0.40201	1.10366	0.37218
0.21	1.60866	+0.22404	1.11771	0.39239	1.15084	0.42305	1.10569	0.39219
0.22	1.63362	+0.22740	1.11958	0.41184	1.15339	0.44322	1.10760	0.41140
0.23	1.65847	+0.22954	1.12132	0.43048	1.15577	0.46257	1.10939	0.42983
0.24	1.68326	+0.23052	1.12296	0.44838	1.15802	0.48112	1.11108	0.44751
0.25	1.70798	+0.23040	1.12451	0.46554	1.16014	0.49890	1.11266	0.46448
0.26	1.73261	+0.22926	1.12596	0.48201	1.16213	0.51596	1.11416	0.48075
0.27	1.75719	+0.22713	1.12734	0.49781	1.16401	0.53232	1.11558	0.49636
0.28	1.78172	+0.22408	1.12864	0.51297	1.16580	0.54801	1.11692	0.51135
0.29	1.80618	+0.22017	1.12987	0.52754	1.16748	0.56307	1.11819	0.52574
0.30	1.83061	+0.21543	1.13104	0.54153	1.16908	0.57754	1.11940	0.53956
0.31	1.85500	+0.20991	1.13216	0.55497	1.17061	0.59143	1.12054	0.55284
0.32	1.87935	+0.20365	1.13321	0.56790	1.17206	0.60479	1.12164	0.56561
0.33	1.90364	+0.19670	1.13421	0.58033	1.17343	0.61763	1.12267	0.57790
0.34	1.92790	+0.18911	1.13518	0.59229	1.17475	0.62998	1.12367	0.58971
0.35	1.95213	+0.18088	1.13609	0.60381	1.17600	0.64187	1.12462	0.60108
0.36	1.97632	+0.17207	1.13696	0.61490	1.17721	0.65333	1.12552	0.61205
0.37	2.00049	+0.16270	1.13779	0.62559	1.17835	0.66437	1.12638	0.62261
0.38	2.02464	+0.15280	1.13860	0.63591	1.17945	0.67501	1.12721	0.63280
0.39	2.04875	+0.14240	1.13935	0.64585	1.18050	0.68527	1.12800	0.64262
0.40	2.07286	+0.13152	1.14009	0.65546	1.18151	0.69517	1.12877	0.65212
0.41	2.09691	+0.12021	1.14080	0.66473	1.18248	0.70474	1.12949	0.66127
0.42	2.12098	+0.10847	1.14147	0.67368	1.18341	0.71398	1.13020	0.67012
0.43	2.14499	+0.09632	1.14211	0.68235	1.18429	0.72291	1.13088	0.67868
0.44	2.16901	+0.08378	1.14274	0.69073	1.18515	0.73155	1.13152	0.68695
0.45	2.19302	+0.07087	1.14334	0.69882	1.18598	0.73989	1.13215	0.69496
0.46	2.21698	+0.05761	1.14392	0.70667	1.18678	0.74798	1.13275	0.70271
0.47	2.24095	+0.04402	1.14448	0.71427	1.18755	0.75582	1.13333	0.71022
0.48	2.26490	+0.03011	1.14501	0.72163	1.18829	0.76341	1.13389	0.71750
0.49	2.28884	+0.01590	1.14553	0.72876	1.18900	0.77076	1.13444	0.72455
0.50	2.31278	+0.00138	1.14603	0.73569	1.18969	0.77790	1.13495	0.73138

TABLE 1 (continued)

$\tau_1 = 0.25$

μ	X_1	Y_1	X_r	Y_r	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$
0.51	2.33669	-0.01341	1.14651	0.74240	1.19036	0.78481	1.13546	0.73801
0.52	2.36057	-0.02845	1.14698	0.74892	1.19100	0.79152	1.13595	0.74444
0.53	2.38446	-0.04374	1.14743	0.75525	1.19163	0.79804	1.13642	0.75070
0.54	2.40835	-0.05929	1.14787	0.76139	1.19223	0.80437	1.13687	0.75677
0.55	2.43221	-0.07507	1.14829	0.76736	1.19281	0.81052	1.13732	0.76267
0.56	2.45608	-0.09107	1.14871	0.77316	1.19338	0.81650	1.13775	0.76840
0.57	2.47990	-0.10727	1.14911	0.77880	1.19393	0.82232	1.13817	0.77398
0.58	2.50374	-0.12368	1.14949	0.78430	1.19446	0.82797	1.13857	0.77940
0.59	2.52758	-0.14030	1.14986	0.78964	1.19498	0.83347	1.13896	0.78468
0.60	2.55140	-0.15710	1.15022	0.79485	1.19548	0.83883	1.13934	0.78982
0.61	2.57521	-0.17408	1.15058	0.79991	1.19596	0.84404	1.13971	0.79482
0.62	2.59902	-0.19123	1.15092	0.80484	1.19644	0.84913	1.14007	0.79969
0.63	2.62284	-0.20856	1.15125	0.80964	1.19690	0.85408	1.14042	0.80445
0.64	2.64663	-0.22604	1.15157	0.81433	1.19734	0.85890	1.14076	0.80907
0.65	2.67040	-0.24367	1.15190	0.81889	1.19779	0.86360	1.14109	0.81358
0.66	2.69419	-0.26146	1.15220	0.82336	1.19821	0.86819	1.14140	0.81798
0.67	2.71797	-0.27939	1.15249	0.82770	1.19862	0.87266	1.14172	0.82228
0.68	2.74172	-0.29745	1.15279	0.83194	1.19902	0.87704	1.14202	0.82646
0.69	2.76549	-0.31565	1.15307	0.83607	1.19942	0.88129	1.14232	0.83056
0.70	2.78928	-0.33399	1.15335	0.84011	1.19980	0.88546	1.14261	0.83456
0.71	2.81305	-0.35245	1.15362	0.84407	1.20016	0.88952	1.14290	0.83845
0.72	2.83681	-0.37102	1.15387	0.84792	1.20053	0.89349	1.14316	0.84226
0.73	2.86055	-0.38971	1.15414	0.85170	1.20088	0.89737	1.14343	0.84599
0.74	2.88427	-0.40850	1.15438	0.85538	1.20123	0.90116	1.14369	0.84962
0.75	2.90800	-0.42741	1.15463	0.85898	1.20156	0.90487	1.14395	0.85318
0.76	2.93174	-0.44643	1.15486	0.86250	1.20189	0.90849	1.14420	0.85666
0.77	2.95549	-0.46555	1.15510	0.86594	1.20221	0.91205	1.14445	0.86006
0.78	2.97922	-0.48477	1.15532	0.86932	1.20253	0.91551	1.14468	0.86339
0.79	3.00294	-0.50408	1.15555	0.87261	1.20283	0.91891	1.14491	0.86665
0.80	3.02668	-0.52348	1.15576	0.87584	1.20313	0.92223	1.14514	0.86983
0.81	3.05040	-0.54297	1.15597	0.87900	1.20342	0.92546	1.14536	0.87297
0.82	3.07411	-0.56255	1.15618	0.88210	1.20371	0.92867	1.14558	0.87602
0.83	3.09781	-0.58219	1.15638	0.88513	1.20399	0.93179	1.14579	0.87901
0.84	3.12153	-0.60194	1.15657	0.88810	1.20426	0.93484	1.14600	0.88195
0.85	3.14525	-0.62176	1.15677	0.89100	1.20453	0.93783	1.14621	0.88482
0.86	3.16894	-0.64164	1.15697	0.89385	1.20480	0.94077	1.14640	0.88764
0.87	3.19264	-0.66162	1.15714	0.89665	1.20505	0.94364	1.14659	0.89040
0.88	3.21634	-0.68165	1.15733	0.89938	1.20530	0.94647	1.14678	0.89310
0.89	3.24005	-0.70176	1.15750	0.90207	1.20555	0.94923	1.14697	0.89576
0.90	3.26374	-0.72193	1.15768	0.90470	1.20579	0.95195	1.14716	0.89836
0.91	3.28742	-0.74217	1.15784	0.90729	1.20603	0.95460	1.14734	0.90091
0.92	3.31113	-0.76248	1.15802	0.90982	1.20626	0.95722	1.14751	0.90342
0.93	3.33480	-0.78284	1.15818	0.91232	1.20649	0.95978	1.14769	0.90588
0.94	3.35851	-0.80328	1.15834	0.91476	1.20671	0.96229	1.14785	0.90829
0.95	3.38218	-0.82375	1.15850	0.91716	1.20693	0.96476	1.14801	0.91066
0.96	3.40587	-0.84430	1.15865	0.91951	1.20715	0.96718	1.14818	0.91299
0.97	3.42955	-0.86489	1.15880	0.92182	1.20736	0.96957	1.14834	0.91527
0.98	3.45324	-0.88554	1.15895	0.92409	1.20756	0.97190	1.14849	0.91751
0.99	3.47692	-0.90625	1.15909	0.92632	1.20776	0.97419	1.14865	0.91970
1.00	3.50058	-0.92700	1.15924	0.92851	1.20797	0.97645	1.14880	0.92188

TABLE 1 (continued)

$\tau_1 = 0.50$

μ	X_1	Y_1	X_r	Y_r	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$
0	1.00000	0	1.00000	0	1.00000	0	1.00000	0
0.01	1.04654	+0.00023	1.01702	0.00192	1.01990	0.00352	1.01244	0.00319
0.02	1.08371	+0.00112	1.02904	0.00408	1.03470	0.00720	1.02222	0.00650
0.03	1.11776	+0.00214	1.03927	0.00647	1.04767	0.01115	1.03101	0.01002
0.04	1.14989	+0.00327	1.04833	0.00893	1.05945	0.01526	1.03913	0.01367
0.05	1.18109	+0.00444	1.05659	0.01161	1.07032	0.01963	1.04676	0.01749
0.06	1.21126	+0.00595	1.06417	0.01462	1.08047	0.02436	1.05399	0.02157
0.07	1.24048	+0.00804	1.07117	0.01812	1.09002	0.02972	1.06088	0.02620
0.08	1.26923	+0.01069	1.07768	0.02241	1.09890	0.03589	1.06746	0.03154
0.09	1.29724	+0.01413	1.08378	0.02768	1.10750	0.04310	1.07373	0.03779
0.10	1.32500	+0.01838	1.08952	0.03405	1.11556	0.05138	1.07976	0.04505
0.11	1.35247	+0.02340	1.09495	0.04151	1.12324	0.06077	1.08552	0.05338
0.12	1.37952	+0.02914	1.10003	0.05008	1.13054	0.07127	1.09102	0.06274
0.13	1.40632	+0.03546	1.10484	0.05967	1.13746	0.08276	1.09628	0.07307
0.14	1.43280	+0.04216	1.10940	0.07018	1.14406	0.09512	1.10129	0.08424
0.15	1.45898	+0.04919	1.11372	0.08151	1.15033	0.10827	1.10609	0.09619
0.16	1.48498	+0.05635	1.11780	0.09353	1.15628	0.12210	1.11067	0.10877
0.17	1.51079	+0.06353	1.12169	0.10610	1.16196	0.13643	1.11505	0.12187
0.18	1.53645	+0.07060	1.12534	0.11914	1.16736	0.15118	1.11924	0.13540
0.19	1.56196	+0.07745	1.12882	0.13256	1.17251	0.16625	1.12323	0.14925
0.20	1.58729	+0.08403	1.13214	0.14624	1.17742	0.18154	1.12705	0.16333
0.21	1.61253	+0.09025	1.13529	0.16009	1.18209	0.19695	1.13072	0.17757
0.22	1.63763	+0.09605	1.13829	0.17407	1.18656	0.21244	1.13422	0.19190
0.23	1.66261	+0.10137	1.14115	0.18811	1.19083	0.22793	1.13758	0.20625
0.24	1.68745	+0.10620	1.14388	0.20214	1.19491	0.24336	1.14079	0.22058
0.25	1.71222	+0.11047	1.14651	0.21612	1.19881	0.25872	1.14387	0.23484
0.26	1.73690	+0.11424	1.14899	0.23004	1.20256	0.27395	1.14681	0.24900
0.27	1.76150	+0.11745	1.15137	0.24383	1.20613	0.28904	1.14965	0.26303
0.28	1.78602	+0.12007	1.15365	0.25747	1.20957	0.30393	1.15237	0.27689
0.29	1.81045	+0.12214	1.15584	0.27096	1.21288	0.31862	1.15497	0.29058
0.30	1.83481	+0.12362	1.15794	0.28426	1.21604	0.33309	1.15748	0.30408
0.31	1.85911	+0.12454	1.15996	0.29738	1.21908	0.34734	1.15990	0.31738
0.32	1.88333	+0.12489	1.16191	0.31029	1.22201	0.36132	1.16221	0.33045
0.33	1.90750	+0.12467	1.16376	0.32299	1.22484	0.37506	1.16446	0.34329
0.34	1.93165	+0.12391	1.16555	0.33547	1.22755	0.38857	1.16660	0.35592
0.35	1.95575	+0.12259	1.16728	0.34773	1.23016	0.40182	1.16869	0.36832
0.36	1.97979	+0.12075	1.16893	0.35975	1.23268	0.41481	1.17068	0.38046
0.37	2.00378	+0.11839	1.17054	0.37155	1.23510	0.42752	1.17262	0.39239
0.38	2.02778	+0.11551	1.17208	0.38313	1.23746	0.43999	1.17449	0.40407
0.39	2.05167	+0.11216	1.17355	0.39447	1.23971	0.45221	1.17629	0.41552
0.40	2.07558	+0.10829	1.17502	0.40559	1.24189	0.46417	1.17803	0.42673
0.41	2.09942	+0.10399	1.17639	0.41649	1.24401	0.47590	1.17972	0.43772
0.42	2.12326	+0.09921	1.17772	0.42716	1.24604	0.48736	1.18135	0.44847
0.43	2.14705	+0.09399	1.17902	0.43761	1.24802	0.49859	1.18293	0.45900
0.44	2.17084	+0.08834	1.18026	0.44785	1.24992	0.50958	1.18445	0.46932
0.45	2.19456	+0.08225	1.18148	0.45788	1.25177	0.52032	1.18594	0.47942
0.46	2.21826	+0.07577	1.18264	0.46770	1.25355	0.53086	1.18737	0.48930
0.47	2.24191	+0.06889	1.18378	0.47731	1.25529	0.54115	1.18876	0.49898
0.48	2.26557	+0.06164	1.18488	0.48672	1.25696	0.55122	1.19011	0.50846
0.49	2.28917	+0.05398	1.18595	0.49593	1.25859	0.56109	1.19142	0.51773
0.50	2.31283	+0.04597	1.18699	0.50496	1.26018	0.57073	1.19269	0.52681

TABLE 1 (continued)

$\tau_1 = 0.50$

μ	X_1	Y_1	X_r	Y_r	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$
0.51	2.33640	+0.03765	1.18799	0.51379	1.26172	0.58018	1.19393	0.53570
0.52	2.35998	+0.02896	1.18896	0.52244	1.26323	0.58944	1.19512	0.54441
0.53	2.38353	+0.01996	1.18991	0.53092	1.26468	0.59850	1.19629	0.55293
0.54	2.40703	+0.01064	1.19082	0.53923	1.26609	0.60737	1.19743	0.56127
0.55	2.43053	+0.00100	1.19171	0.54736	1.26747	0.61606	1.19852	0.56945
0.56	2.45401	-0.00894	1.19258	0.55534	1.26880	0.62456	1.19960	0.57746
0.57	2.47750	-0.01919	1.19343	0.56314	1.27010	0.63290	1.20065	0.58531
0.58	2.50094	-0.02966	1.19425	0.57079	1.27137	0.64106	1.20166	0.59299
0.59	2.52440	-0.04047	1.19505	0.57829	1.27260	0.64905	1.20265	0.60052
0.60	2.54786	-0.05152	1.19583	0.58563	1.27380	0.65688	1.20362	0.60790
0.61	2.57128	-0.06283	1.19658	0.59283	1.27496	0.66455	1.20456	0.61513
0.62	2.59468	-0.07440	1.19733	0.59988	1.27610	0.67207	1.20548	0.62221
0.63	2.61808	-0.08619	1.19804	0.60679	1.27721	0.67943	1.20638	0.62916
0.64	2.64146	-0.09823	1.19876	0.61358	1.27828	0.68666	1.20726	0.63597
0.65	2.66482	-0.11049	1.19944	0.62023	1.27935	0.69374	1.20810	0.64265
0.66	2.68818	-0.12296	1.20012	0.62675	1.28038	0.70068	1.20893	0.64920
0.67	2.71157	-0.13568	1.20076	0.63316	1.28138	0.70750	1.20975	0.65561
0.68	2.73486	-0.14858	1.20141	0.63943	1.28236	0.71418	1.21054	0.66191
0.69	2.75821	-0.16169	1.20203	0.64559	1.28331	0.72073	1.21131	0.66809
0.70	2.78153	-0.17499	1.20263	0.65164	1.28425	0.72716	1.21208	0.67416
0.71	2.80484	-0.18848	1.20323	0.65757	1.28517	0.73346	1.21281	0.68010
0.72	2.82815	-0.20215	1.20380	0.66339	1.28606	0.73965	1.21354	0.68594
0.73	2.85145	-0.21601	1.20438	0.66911	1.28693	0.74573	1.21425	0.69168
0.74	2.87480	-0.23006	1.20495	0.67471	1.28779	0.75169	1.21495	0.69730
0.75	2.89807	-0.24427	1.20547	0.68022	1.28863	0.75753	1.21562	0.70282
0.76	2.92138	-0.25866	1.20600	0.68562	1.28944	0.76328	1.21628	0.70825
0.77	2.94465	-0.27318	1.20652	0.69094	1.29024	0.76890	1.21693	0.71357
0.78	2.96790	-0.28787	1.20703	0.69616	1.29103	0.77444	1.21757	0.71881
0.79	2.99117	-0.30273	1.20752	0.70129	1.29179	0.77988	1.21820	0.72394
0.80	3.01445	-0.31772	1.20801	0.70633	1.29256	0.78523	1.21881	0.72899
0.81	3.03771	-0.33287	1.20849	0.71128	1.29328	0.79049	1.21940	0.73395
0.82	3.06095	-0.34816	1.20895	0.71614	1.29400	0.79565	1.21998	0.73883
0.83	3.08420	-0.36358	1.20941	0.72092	1.29471	0.80073	1.22057	0.74361
0.84	3.10747	-0.37914	1.20985	0.72561	1.29539	0.80571	1.22113	0.74833
0.85	3.13071	-0.39484	1.21030	0.73023	1.29607	0.81061	1.22167	0.75295
0.86	3.15398	-0.41067	1.21072	0.73476	1.29674	0.81541	1.22221	0.75751
0.87	3.17720	-0.42660	1.21115	0.73923	1.29741	0.82015	1.22275	0.76198
0.88	3.20045	-0.44267	1.21157	0.74362	1.29804	0.82481	1.22327	0.76638
0.89	3.22370	-0.45886	1.21197	0.74793	1.29865	0.82938	1.22377	0.77072
0.90	3.24690	-0.47515	1.21238	0.75219	1.29927	0.83389	1.22428	0.77497
0.91	3.27010	-0.49154	1.21278	0.75637	1.29987	0.83832	1.22477	0.77917
0.92	3.29333	-0.50806	1.21317	0.76047	1.30046	0.84267	1.22525	0.78328
0.93	3.31655	-0.52470	1.21355	0.76452	1.30104	0.84697	1.22573	0.78734
0.94	3.33976	-0.54143	1.21392	0.76851	1.30160	0.85119	1.22619	0.79133
0.95	3.36297	-0.55825	1.21429	0.77242	1.30217	0.85534	1.22666	0.79526
0.96	3.38618	-0.57520	1.21465	0.77628	1.30271	0.85943	1.22710	0.79913
0.97	3.40938	-0.59223	1.21501	0.78009	1.30326	0.86346	1.22755	0.80294
0.98	3.43257	-0.60934	1.21536	0.78382	1.30379	0.86742	1.22798	0.80668
0.99	3.45578	-0.62656	1.21570	0.78751	1.30430	0.87132	1.22840	0.81037
1.00	3.47895	-0.64388	1.21605	0.79114	1.30481	0.87516	1.22882	0.81400

TABLE 1 (continued)

$\tau_1 = 1.00$

μ	X_1	Y_1	X_r	Y_r	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$
0	1.0000	0	1.00000	0	1.00000	0	1.00000	0
0.01	1.0463	+0.0002	1.01715	0.00073	1.02025	0.00177	1.01045	0.00198
0.02	1.0837	+0.0006	1.02928	0.00167	1.03537	0.00367	1.02288	0.00402
0.03	1.1178	+0.0011	1.03956	0.00258	1.04864	0.00564	1.03198	0.00615
0.04	1.1499	+0.0012	1.04872	0.00361	1.06071	0.00779	1.04046	0.00831
0.05	1.1805	+0.0015	1.05707	0.00465	1.07196	0.00996	1.04845	0.01056
0.06	1.2104	+0.0020	1.06472	0.00572	1.08257	0.01232	1.05605	0.01287
0.07	1.2398	+0.0021	1.07186	0.00683	1.09258	0.01475	1.06333	0.01522
0.08	1.2685	+0.0023	1.07856	0.00799	1.10209	0.01725	1.07036	0.01762
0.09	1.2966	+0.0027	1.08483	0.00929	1.11108	0.01983	1.07711	0.02016
0.10	1.3243	+0.0032	1.09076	0.01062	1.11973	0.02252	1.08365	0.02279
0.11	1.3517	+0.0036	1.09640	0.01203	1.12804	0.02541	1.08996	0.02553
0.12	1.3789	+0.0041	1.10178	0.01360	1.13606	0.02842	1.09608	0.02842
0.13	1.4057	+0.0048	1.10689	0.01528	1.14384	0.03164	1.10203	0.03148
0.14	1.4320	+0.0058	1.11178	0.01723	1.15126	0.03513	1.10781	0.03474
0.15	1.4584	+0.0069	1.11648	0.01942	1.15848	0.03887	1.11341	0.03821
0.16	1.4846	+0.0081	1.12098	0.02184	1.16543	0.04286	1.11888	0.04193
0.17	1.5105	+0.0095	1.12531	0.02454	1.17215	0.04713	1.12420	0.04593
0.18	1.5361	+0.0112	1.12945	0.02752	1.17866	0.05172	1.12939	0.05020
0.19	1.5614	+0.0128	1.13345	0.03079	1.18496	0.05667	1.13442	0.05478
0.20	1.5868	+0.0146	1.13731	0.03438	1.19108	0.06194	1.13934	0.05965
0.21	1.6118	+0.0165	1.14100	0.03823	1.19698	0.06751	1.14412	0.06479
0.22	1.6369	+0.0186	1.14457	0.04242	1.20274	0.07341	1.14878	0.07021
0.23	1.6619	+0.0208	1.14802	0.04692	1.20834	0.07963	1.15333	0.07592
0.24	1.6867	+0.0229	1.15136	0.05169	1.21377	0.08611	1.15776	0.08191
0.25	1.7115	+0.0251	1.15461	0.05675	1.21904	0.09289	1.16208	0.08812
0.26	1.7359	+0.0275	1.15772	0.06207	1.22417	0.09994	1.16629	0.09460
0.27	1.7604	+0.0297	1.16074	0.06764	1.22915	0.10719	1.17039	0.10130
0.28	1.7849	+0.0320	1.16367	0.07347	1.23398	0.11471	1.17439	0.10822
0.29	1.8095	+0.0343	1.16651	0.07948	1.23868	0.12239	1.17829	0.11532
0.30	1.8336	+0.0364	1.16926	0.08573	1.24324	0.13026	1.18208	0.12260
0.31	1.8579	+0.0384	1.17190	0.09213	1.24770	0.13831	1.18579	0.13006
0.32	1.8822	+0.0402	1.17450	0.09868	1.25203	0.14649	1.18940	0.13764
0.33	1.9062	+0.0421	1.17700	0.10540	1.25625	0.15485	1.19292	0.14536
0.34	1.9302	+0.0436	1.17942	0.11224	1.26034	0.16330	1.19637	0.15318
0.35	1.9543	+0.0450	1.18180	0.11923	1.26433	0.17186	1.19973	0.16111
0.36	1.9783	+0.0463	1.18410	0.12632	1.26822	0.18053	1.20300	0.16912
0.37	2.0020	+0.0473	1.18633	0.13350	1.27201	0.18925	1.20619	0.17720
0.38	2.0259	+0.0481	1.18852	0.14074	1.27571	0.19806	1.20931	0.18534
0.39	2.0498	+0.0486	1.19061	0.14809	1.27931	0.20687	1.21235	0.19354
0.40	2.0735	+0.0490	1.19268	0.15551	1.28282	0.21576	1.21532	0.20177
0.41	2.0973	+0.0492	1.19467	0.16295	1.28626	0.22466	1.21822	0.21003
0.42	2.1210	+0.0490	1.19661	0.17040	1.28958	0.23356	1.22105	0.21831
0.43	2.1445	+0.0488	1.19852	0.17789	1.29284	0.24251	1.22383	0.22660
0.44	2.1681	+0.0482	1.20035	0.18540	1.29602	0.25142	1.22653	0.23489
0.45	2.1917	+0.0474	1.20217	0.19295	1.29915	0.26037	1.22918	0.24318
0.46	2.2153	+0.0462	1.20393	0.20050	1.30217	0.26926	1.23177	0.25144
0.47	2.2389	+0.0450	1.20563	0.20800	1.30514	0.27816	1.23429	0.25969
0.48	2.2623	+0.0435	1.20731	0.21559	1.30803	0.28701	1.23677	0.26792
0.49	2.2857	+0.0417	1.20892	0.22310	1.31095	0.29585	1.23919	0.27612
0.50	2.3092	+0.0396	1.21049	0.23061	1.31363	0.30462	1.24158	0.28428

TABLE 1 (continued)

$\tau_1 = 1.00$

μ	X_1	Y_1	X_r	Y_r	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$
0.51	2.3326	+0.0372	1.21204	0.23809	1.31630	0.31337	1.24388	0.29240
0.52	2.3558	+0.0346	1.21355	0.24554	1.31893	0.32206	1.24615	0.30048
0.53	2.3791	+0.0317	1.21501	0.25295	1.32153	0.33070	1.24836	0.30852
0.54	2.4023	+0.0287	1.21647	0.26035	1.32406	0.33930	1.25054	0.31650
0.55	2.4255	+0.0254	1.21786	0.26768	1.32653	0.34781	1.25265	0.32444
0.56	2.4488	+0.0218	1.21922	0.27498	1.32894	0.35629	1.25474	0.33232
0.57	2.4721	+0.0179	1.22056	0.28224	1.33132	0.36467	1.25678	0.34014
0.58	2.4952	+0.0139	1.22186	0.28942	1.33363	0.37301	1.25877	0.34790
0.59	2.5185	+0.0096	1.22314	0.29662	1.33588	0.38128	1.26072	0.35560
0.60	2.5417	+0.0049	1.22442	0.30372	1.33810	0.38949	1.26264	0.36323
0.61	2.5646	+0.0002	1.22567	0.31074	1.34026	0.39764	1.26452	0.37081
0.62	2.5880	-0.0049	1.22686	0.31775	1.34239	0.40569	1.26636	0.37831
0.63	2.6110	-0.0101	1.22803	0.32468	1.34447	0.41366	1.26815	0.38576
0.64	2.6341	-0.0155	1.22917	0.33157	1.34651	0.42158	1.26993	0.39314
0.65	2.6572	-0.0213	1.23031	0.33842	1.34851	0.42941	1.27167	0.40045
0.66	2.6804	-0.0273	1.23142	0.34516	1.35047	0.43717	1.27336	0.40768
0.67	2.7034	-0.0336	1.23251	0.35187	1.35240	0.44486	1.27503	0.41485
0.68	2.7265	-0.0399	1.23356	0.35854	1.35428	0.45248	1.27668	0.42196
0.69	2.7495	-0.0465	1.23461	0.36512	1.35613	0.45999	1.27828	0.42898
0.70	2.7725	-0.0533	1.23564	0.37166	1.35795	0.46745	1.27986	0.43596
0.71	2.7956	-0.0604	1.23664	0.37811	1.35973	0.47483	1.28140	0.44285
0.72	2.8186	-0.0676	1.23763	0.38452	1.36147	0.48213	1.28293	0.44968
0.73	2.8415	-0.0751	1.23861	0.39085	1.36319	0.48936	1.28442	0.45644
0.74	2.8646	-0.0827	1.23955	0.39712	1.36489	0.49651	1.28589	0.46312
0.75	2.8875	-0.0906	1.24049	0.40334	1.36653	0.50359	1.28733	0.46975
0.76	2.9105	-0.0986	1.24140	0.40950	1.36815	0.51061	1.28875	0.47630
0.77	2.9335	-0.1069	1.24229	0.41562	1.36974	0.51753	1.29013	0.48278
0.78	2.9565	-0.1153	1.24317	0.42165	1.37131	0.52440	1.29149	0.48919
0.79	2.9795	-0.1240	1.24404	0.42760	1.37284	0.53117	1.29283	0.49553
0.80	3.0024	-0.1328	1.24489	0.43349	1.37437	0.53789	1.29417	0.50181
0.81	3.0253	-0.1418	1.24573	0.43934	1.37585	0.54452	1.29545	0.50801
0.82	3.0480	-0.1508	1.24656	0.44515	1.37731	0.55107	1.29673	0.51416
0.83	3.0710	-0.1602	1.24735	0.45085	1.37875	0.55758	1.29797	0.52024
0.84	3.0939	-0.1696	1.24815	0.45652	1.38015	0.56399	1.29921	0.52625
0.85	3.1169	-0.1794	1.24892	0.46212	1.38153	0.57035	1.30042	0.53219
0.86	3.1395	-0.1892	1.24969	0.46767	1.38289	0.57664	1.30161	0.53807
0.87	3.1626	-0.1992	1.25042	0.47316	1.38424	0.58286	1.30279	0.54390
0.88	3.1851	-0.2093	1.25117	0.47858	1.38555	0.58899	1.30394	0.54966
0.89	3.2080	-0.2196	1.25189	0.48396	1.38685	0.59508	1.30507	0.55535
0.90	3.2309	-0.2301	1.25262	0.48929	1.38813	0.60108	1.30620	0.56099
0.91	3.2538	-0.2407	1.25331	0.49454	1.38940	0.60703	1.30730	0.56656
0.92	3.2766	-0.2515	1.25400	0.49974	1.39062	0.61292	1.30838	0.57207
0.93	3.2995	-0.2624	1.25467	0.50491	1.39184	0.61874	1.30946	0.57753
0.94	3.3223	-0.2734	1.25533	0.51000	1.39305	0.62450	1.31052	0.58293
0.95	3.3452	-0.2847	1.25600	0.51503	1.39425	0.63017	1.31155	0.58825
0.96	3.3680	-0.2960	1.25664	0.52004	1.39541	0.63581	1.31259	0.59353
0.97	3.3907	-0.3075	1.25727	0.52498	1.39657	0.64138	1.31362	0.59875
0.98	3.4134	-0.3191	1.25791	0.52988	1.39770	0.64689	1.31462	0.60392
0.99	3.4361	-0.3308	1.25854	0.53472	1.39884	0.65234	1.31559	0.60902
1.00	3.4588	-0.3427	1.25915	0.53952	1.39994	0.65773	1.31656	0.61406

TABLE 2

THE MOMENTS α_n, β_n, A_n AND B_n OF ORDER n OF $X_1(\mu)$, $Y_1(\mu)$, $X_r(\mu)$ AND $Y_r(\mu)$

AND OTHER AUXILIARY CONSTANTS

(i) The Moments of $X_1(\mu)$ and $Y_1(\mu)$

τ_1	α_0	α_1	α_2	α_3	β_0	β_1	β_2	β_3
0.05	2.31548	1.36836	0.98217	0.76806	-0.25732	-0.29170	-0.25732	-0.22236
0.10	2.30945	1.36152	0.97610	0.76279	-0.21904	-0.24507	-0.21904	-0.19101
0.15	2.30593	1.35764	0.97262	0.75975	-0.19143	-0.21222	-0.19143	-0.16811
0.20	2.30365	1.35517	0.97039	0.75780	-0.16975	-0.18684	-0.16975	-0.14995
0.25	2.30219	1.35357	0.96894	0.75650	-0.15203	-0.16636	-0.15203	-0.13495
0.50	2.2983	1.3496	0.9654	0.7534	-0.0946	-0.1015	-0.0946	-0.0855
1.00	2.292	1.345	0.962	0.750	-0.0430	-0.0453	-0.0430	-0.0397

(ii) The Moments of $X_r(\mu)$ and $Y_r(\mu)$

τ_1	A_0	A_1	A_2	A_3	A_4	B_0	B_1	B_2	B_3	B_4
0.05	1.05436	0.52855	0.35254	0.26445	0.21158	0.88070	0.48306	0.32848	0.24825	0.19938
0.10	1.08370	0.54500	0.36381	0.27300	0.21846	0.80150	0.45978	0.31738	0.24145	0.19461
0.15	1.10451	0.55713	0.37223	0.27942	0.22364	0.73653	0.43627	0.30493	0.23335	0.18872
0.20	1.12030	0.56660	0.37888	0.28453	0.22776	0.68061	0.41341	0.29207	0.22472	0.18230
0.25	1.13273	0.57423	0.38430	0.28870	0.23117	0.63124	0.39145	0.27919	0.21587	0.17563
0.50	1.16813	0.59692	0.40076	0.30155	0.24168	0.44655	0.29682	0.21937	0.17307	0.14259
1.00	1.19003	0.61195	0.41208	0.31058	0.24918	0.23813	0.17019	0.13137	0.10654	0.08941

(iii) The Constants Which Occur in the Expressions for $\psi, \phi, \chi, \zeta, \xi, \eta, \sigma$ and θ ; and $\bar{s}$

τ_1	ν_1	ν_2	ν_3	ν_4	u_3	u_4	Q	$\bar{s}$
0.05	-0.20070	-0.22308	+0.90345	-1.34589	-0.29656	-0.31992	20.999	0.0448
0.10	-0.20515	-0.24690	+0.78333	-1.26655	-0.30167	-0.34630	10.775	0.0843
0.15	-0.20747	-0.26665	+0.69768	-1.21356	-0.30395	-0.36834	7.3193	0.1194
0.20	-0.20869	-0.28386	+0.63077	-1.17446	-0.30466	-0.38764	5.5678	0.1510
0.25	-0.20923	-0.29922	+0.57606	-1.14409	-0.30439	-0.40492	4.5048	0.1800
0.50	-0.2069	-0.3587	+0.3973	-1.0559	-0.2956	-0.4724	2.8224	0.2963
1.00	-0.1926	-0.4326	+0.2281	-0.9882	-0.2664	-0.5581	1.1723	0.4484

TABLE 3

THE FUNCTIONS ψ, ϕ, χ, ζ, ξ, η, σ AND θ IN TERMS OF WHICH S_0 AND T_0 ARE EXPRESSED

$\tau_1 = 0.05$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ
0	0	1.00000	1.00000	0	0	0	0	0
0.02	0.00444	1.05101	1.03200	0.00200	0.00391	0.11822	0.10622	0.00193
0.04	0.00787	1.07147	1.04627	0.00309	0.00660	0.34656	0.32630	0.00301
0.06	0.01113	1.08037	1.05360	0.00366	0.00897	0.50697	0.48301	0.00360
0.08	0.01477	1.08391	1.05799	0.00400	0.01169	0.61389	0.58695	0.00395
0.10	0.01904	1.08434	1.06090	0.00423	0.01500	0.68780	0.66379	0.00418
0.12	0.02402	1.08260	1.06295	0.00439	0.01901	0.74069	0.71904	0.00436
0.14	0.02977	1.07918	1.06449	0.00451	0.02378	0.77941	0.76137	0.00448
0.16	0.03632	1.07434	1.06568	0.00460	0.02933	0.80810	0.79481	0.00458
0.18	0.04369	1.06826	1.06663	0.00468	0.03570	0.82933	0.82184	0.00465
0.20	0.05187	1.06103	1.06740	0.00473	0.04290	0.84480	0.84415	0.00473
0.22	0.06088	1.05271	1.06804	0.00480	0.05091	0.85572	0.86286	0.00477
0.24	0.07073	1.04335	1.06859	0.00483	0.05976	0.86288	0.87878	0.00482
0.26	0.08143	1.03300	1.06905	0.00487	0.06946	0.86686	0.89248	0.00485
0.28	0.09296	1.02164	1.06946	0.00491	0.07998	0.86814	0.90440	0.00489
0.30	0.10532	1.00932	1.06980	0.00494	0.09135	0.86704	0.91486	0.00491
0.32	0.11854	0.99606	1.07012	0.00496	0.10357	0.86380	0.92411	0.00494
0.34	0.13261	0.98186	1.07039	0.00497	0.11662	0.85865	0.93236	0.00497
0.36	0.14752	0.96672	1.07063	0.00500	0.13053	0.85173	0.93976	0.00498
0.38	0.16328	0.95065	1.07086	0.00502	0.14529	0.84316	0.94641	0.00500
0.40	0.17989	0.93369	1.07106	0.00502	0.16088	0.83307	0.95246	0.00502
0.42	0.19734	0.91577	1.07124	0.00505	0.17733	0.82157	0.95796	0.00503
0.44	0.21564	0.89695	1.07140	0.00506	0.19462	0.80867	0.96298	0.00505
0.46	0.23480	0.87724	1.07155	0.00506	0.21278	0.79445	0.96760	0.00506
0.48	0.25480	0.85661	1.07169	0.00509	0.23177	0.77896	0.97185	0.00507
0.50	0.27565	0.83507	1.07183	0.00509	0.25161	0.76227	0.97576	0.00508
0.52	0.29735	0.81264	1.07194	0.00511	0.27231	0.74439	0.97941	0.00508
0.54	0.31991	0.78930	1.07206	0.00512	0.29386	0.72535	0.98279	0.00510
0.56	0.34330	0.76505	1.07215	0.00512	0.31625	0.70521	0.98594	0.00510
0.58	0.36756	0.73991	1.07225	0.00512	0.33949	0.68395	0.98888	0.00512
0.60	0.39266	0.71386	1.07234	0.00514	0.36358	0.66164	0.99163	0.00512
0.62	0.41861	0.68694	1.07242	0.00514	0.38852	0.63822	0.99422	0.00513
0.64	0.44542	0.65909	1.07250	0.00515	0.41432	0.61378	0.99665	0.00513
0.66	0.47306	0.63038	1.07258	0.00516	0.44097	0.58828	0.99894	0.00514
0.68	0.50158	0.60077	1.07265	0.00516	0.46847	0.56178	1.00110	0.00515
0.70	0.53093	0.57025	1.07271	0.00517	0.49681	0.53426	1.00312	0.00515
0.72	0.56113	0.53883	1.07277	0.00518	0.52601	0.50575	1.00505	0.00515
0.74	0.59219	0.50653	1.07284	0.00518	0.55606	0.47622	1.00689	0.00516
0.76	0.62409	0.47333	1.07289	0.00518	0.58696	0.44574	1.00862	0.00517
0.78	0.65685	0.43924	1.07295	0.00519	0.61871	0.41427	1.01026	0.00517
0.80	0.69046	0.40425	1.07300	0.00519	0.65131	0.38183	1.01184	0.00518
0.82	0.72492	0.36838	1.07304	0.00519	0.68476	0.34842	1.01333	0.00518
0.84	0.76023	0.33161	1.07308	0.00520	0.71907	0.31405	1.01476	0.00518
0.86	0.79640	0.29395	1.07313	0.00520	0.75422	0.27873	1.01612	0.00519
0.88	0.83341	0.25540	1.07318	0.00520	0.79022	0.24247	1.01742	0.00519
0.90	0.87128	0.21595	1.07322	0.00521	0.82708	0.20525	1.01867	0.00519
0.92	0.90999	0.17562	1.07325	0.00521	0.86479	0.16708	1.01986	0.00520
0.94	0.94955	0.13439	1.07329	0.00521	0.90334	0.12799	1.02099	0.00520
0.96	0.98997	0.09228	1.07331	0.00521	0.94275	0.08795	1.02209	0.00521
0.98	1.03125	0.04926	1.07337	0.00522	0.98302	0.04698	1.02314	0.00521
1.00	1.07336	0.00535	1.07339	0.00522	1.02412	0.00509	1.02415	0.00521

TABLE 3 (continued)

$\tau_1 = 0.10$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ
0	0	1.00000	1.00000	0	0	0	0	0
0.02	0.00528	1.05571	1.03468	0.00241	0.00437	0.03455	0.02693	0.00215
0.04	0.01053	1.08710	1.05666	0.00436	0.00844	0.13971	0.12282	0.00407
0.06	0.01545	1.10610	1.07123	0.00573	0.01193	0.26947	0.24539	0.00546
0.08	0.02041	1.11736	1.08120	0.00668	0.01527	0.38317	0.35453	0.00645
0.10	0.02572	1.12358	1.08836	0.00738	0.01884	0.47527	0.44446	0.00717
0.12	0.03157	1.12621	1.09370	0.00791	0.02288	0.54884	0.51774	0.00770
0.14	0.03807	1.12616	1.09785	0.00831	0.02752	0.60759	0.57782	0.00813
0.16	0.04527	1.12395	1.10115	0.00864	0.03284	0.65469	0.62769	0.00847
0.18	0.05326	1.11994	1.10385	0.00890	0.03889	0.69247	0.66959	0.00875
0.20	0.06203	1.11428	1.10609	0.00913	0.04573	0.72280	0.70521	0.00899
0.22	0.07161	1.10718	1.10797	0.00931	0.05336	0.74691	0.73583	0.00918
0.24	0.08203	1.09876	1.10957	0.00947	0.06181	0.76590	0.76241	0.00935
0.26	0.09330	1.08905	1.11096	0.00961	0.07110	0.78048	0.78567	0.00950
0.28	0.10541	1.07817	1.11217	0.00973	0.08122	0.79125	0.80620	0.00962
0.30	0.11836	1.06610	1.11324	0.00984	0.09219	0.79873	0.82446	0.00973
0.32	0.13219	1.05296	1.11419	0.00993	0.10403	0.80322	0.84076	0.00983
0.34	0.14688	1.03870	1.11504	0.01002	0.11671	0.80507	0.85544	0.00992
0.36	0.16245	1.02337	1.11580	0.01008	0.13027	0.80450	0.86872	0.01001
0.38	0.17888	1.00700	1.11651	0.01016	0.14469	0.80173	0.88076	0.01008
0.40	0.19617	0.98957	1.11713	0.01023	0.15997	0.79691	0.89176	0.01015
0.42	0.21435	0.97114	1.11768	0.01027	0.17614	0.79018	0.90183	0.01020
0.44	0.23339	0.95168	1.11819	0.01033	0.19318	0.78167	0.91110	0.01025
0.46	0.25333	0.93122	1.11868	0.01037	0.21110	0.77147	0.91962	0.01031
0.48	0.27414	0.90975	1.11912	0.01042	0.22988	0.75963	0.92753	0.01035
0.50	0.29582	0.88731	1.11954	0.01045	0.24955	0.74628	0.93484	0.01040
0.52	0.31839	0.86388	1.11992	0.01050	0.27010	0.73143	0.94168	0.01043
0.54	0.34183	0.83944	1.12028	0.01053	0.29151	0.71518	0.94804	0.01047
0.56	0.36615	0.81403	1.12060	0.01057	0.31381	0.69754	0.95397	0.01050
0.58	0.39135	0.78764	1.12091	0.01059	0.33700	0.67859	0.95954	0.01054
0.60	0.41744	0.76028	1.12121	0.01062	0.36106	0.65830	0.96477	0.01058
0.62	0.44441	0.73196	1.12147	0.01065	0.38601	0.63676	0.96970	0.01060
0.64	0.47226	0.70265	1.12172	0.01068	0.41183	0.61399	0.97433	0.01063
0.66	0.50099	0.67239	1.12197	0.01071	0.43853	0.58998	0.97870	0.01065
0.68	0.53061	0.64116	1.12220	0.01072	0.46612	0.56478	0.98284	0.01067
0.70	0.56111	0.60896	1.12242	0.01074	0.49459	0.53842	0.98676	0.01070
0.72	0.59248	0.57581	1.12262	0.01077	0.52394	0.51090	0.99047	0.01072
0.74	0.62475	0.54167	1.12280	0.01079	0.55418	0.48223	0.99400	0.01074
0.76	0.65789	0.50660	1.12299	0.01081	0.58530	0.45244	0.99735	0.01076
0.78	0.69193	0.47056	1.12317	0.01082	0.61731	0.42158	1.00054	0.01077
0.80	0.72684	0.43357	1.12332	0.01084	0.65019	0.38952	1.00359	0.01079
0.82	0.76264	0.39561	1.12348	0.01085	0.68396	0.35643	1.00649	0.01081
0.84	0.79932	0.35670	1.12364	0.01087	0.71860	0.32225	1.00926	0.01083
0.86	0.83689	0.31683	1.12377	0.01089	0.75414	0.28700	1.01191	0.01084
0.88	0.87533	0.27600	1.12391	0.01090	0.79057	0.25069	1.01446	0.01086
0.90	0.91467	0.23423	1.12405	0.01090	0.82786	0.21331	1.01687	0.01088
0.92	0.95489	0.19150	1.12416	0.01092	0.86606	0.17488	1.01921	0.01089
0.94	0.99600	0.14781	1.12429	0.01094	0.90512	0.13543	1.02144	0.01090
0.96	1.03798	0.10318	1.12441	0.01095	0.94507	0.09491	1.02359	0.01091
0.98	1.08086	0.05760	1.12452	0.01096	0.98592	0.05336	1.02566	0.01093
1.00	1.12461	0.01104	1.12463	0.01097	1.02765	0.01080	1.02766	0.01094

TABLE 3 (continued)

$\tau_1 = 0.15$

μ	Ψ	ϕ	χ	ζ	ξ	η	σ	θ
0	0	1.00000	1.00000	0	0	0	0	0
0.02	0.00575	1.05753	1.03575	0.00263	0.00446	0.02288	0.01786	0.00219
0.04	0.01194	1.09266	1.06045	0.00503	0.00913	0.07277	0.06037	0.00444
0.06	0.01812	1.11733	1.07914	0.00701	0.01347	0.15708	0.13722	0.00637
0.08	0.02430	1.13416	1.09326	0.00853	0.01753	0.24961	0.22375	0.00793
0.10	0.03071	1.14523	1.10409	0.00973	0.02161	0.33585	0.30590	0.00917
0.12	0.03751	1.15195	1.11258	0.01068	0.02592	0.41157	0.37932	0.01016
0.14	0.04485	1.15529	1.11940	0.01144	0.03065	0.47644	0.44360	0.01095
0.16	0.05282	1.15588	1.12496	0.01207	0.03593	0.53142	0.49956	0.01162
0.18	0.06149	1.15412	1.12961	0.01260	0.04185	0.57780	0.54834	0.01217
0.20	0.07091	1.15037	1.13351	0.01303	0.04845	0.61672	0.59105	0.01264
0.22	0.08110	1.14485	1.13684	0.01341	0.05581	0.64924	0.62864	0.01305
0.24	0.09212	1.13770	1.13974	0.01375	0.06394	0.67619	0.66191	0.01340
0.26	0.10395	1.12903	1.14224	0.01403	0.07287	0.69834	0.69152	0.01371
0.28	0.11662	1.11895	1.14445	0.01428	0.08262	0.71618	0.71801	0.01398
0.30	0.13015	1.10753	1.14643	0.01451	0.09321	0.73025	0.74185	0.01421
0.32	0.14455	1.09486	1.14818	0.01471	0.10465	0.74086	0.76339	0.01443
0.34	0.15981	1.08090	1.14974	0.01489	0.11695	0.74844	0.78295	0.01462
0.36	0.17596	1.06574	1.15117	0.01506	0.13011	0.75319	0.80079	0.01480
0.38	0.19298	1.04943	1.15244	0.01521	0.14415	0.75534	0.81711	0.01496
0.40	0.21090	1.03195	1.15362	0.01533	0.15906	0.75512	0.83209	0.01511
0.42	0.22969	1.01333	1.15468	0.01546	0.17486	0.75266	0.84590	0.01524
0.44	0.24939	0.99361	1.15569	0.01557	0.19155	0.74811	0.85865	0.01537
0.46	0.26998	0.97280	1.15660	0.01568	0.20912	0.74158	0.87048	0.01547
0.48	0.29147	0.95090	1.15743	0.01577	0.22759	0.73317	0.88148	0.01558
0.50	0.31385	0.92791	1.15821	0.01586	0.24695	0.72300	0.89172	0.01567
0.52	0.33713	0.90384	1.15893	0.01595	0.26720	0.71113	0.90129	0.01577
0.54	0.36133	0.87872	1.15961	0.01603	0.28836	0.69761	0.91023	0.01585
0.56	0.38641	0.85255	1.16024	0.01610	0.31041	0.68251	0.91864	0.01592
0.58	0.41241	0.82533	1.16083	0.01616	0.33337	0.66590	0.92652	0.01601
0.60	0.43930	0.79707	1.16139	0.01623	0.35722	0.64780	0.93395	0.01607
0.62	0.46710	0.76776	1.16191	0.01629	0.38198	0.62828	0.94096	0.01614
0.64	0.49582	0.73742	1.16240	0.01634	0.40765	0.60735	0.94757	0.01620
0.66	0.52543	0.70605	1.16286	0.01640	0.43422	0.58505	0.95383	0.01625
0.68	0.55595	0.67365	1.16330	0.01644	0.46169	0.56140	0.95978	0.01631
0.70	0.58739	0.64024	1.16373	0.01650	0.49008	0.53644	0.96540	0.01637
0.72	0.61971	0.60579	1.16412	0.01654	0.51935	0.51020	0.97075	0.01642
0.74	0.65296	0.57033	1.16450	0.01659	0.54955	0.48268	0.97583	0.01645
0.76	0.68711	0.53383	1.16485	0.01663	0.58064	0.45394	0.98069	0.01651
0.78	0.72218	0.49633	1.16520	0.01667	0.61266	0.42396	0.98530	0.01655
0.80	0.75815	0.45780	1.16551	0.01670	0.64558	0.39276	0.98971	0.01659
0.82	0.79503	0.41826	1.16583	0.01674	0.67939	0.36037	0.99393	0.01663
0.84	0.83283	0.37772	1.16612	0.01677	0.71413	0.32677	0.99797	0.01666
0.86	0.87152	0.33616	1.16641	0.01680	0.74977	0.29204	1.00183	0.01671
0.88	0.91114	0.29359	1.16667	0.01684	0.78632	0.25613	1.00552	0.01674
0.90	0.95167	0.25003	1.16693	0.01687	0.82379	0.21905	1.00906	0.01677
0.92	0.99310	0.20544	1.16717	0.01688	0.86216	0.18085	1.01249	0.01681
0.94	1.03544	0.15985	1.16741	0.01692	0.90144	0.14150	1.01576	0.01684
0.96	1.07870	0.11326	1.16763	0.01694	0.94164	0.10102	1.01890	0.01687
0.98	1.12287	0.06565	1.16785	0.01697	0.98274	0.05946	1.02193	0.01689
1.00	1.16795	0.01704	1.16806	0.01699	1.02475	0.01675	1.02485	0.01692

TABLE 3 (continued)

$\tau_1 = 0.20$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ
0	0	1.00000	1.00000	0	0	0	0	0
0.02	0.00613	1.05827	1.03643	0.00281	0.00449	0.01896	0.01548	0.00221
0.04	0.01289	1.09532	1.06234	0.00550	0.00939	0.04870	0.03985	0.00456
0.06	0.01995	1.12312	1.08333	0.00787	0.01426	0.10235	0.08704	0.00683
0.08	0.02715	1.14367	1.10026	0.00986	0.01893	0.17168	0.15030	0.00881
0.10	0.03454	1.15837	1.11393	0.01152	0.02352	0.24457	0.21825	0.01048
0.12	0.04227	1.16842	1.12507	0.01288	0.02820	0.31418	0.28440	0.01190
0.14	0.05046	1.17468	1.13427	0.01403	0.03316	0.37767	0.34596	0.01308
0.16	0.05921	1.17780	1.14195	0.01498	0.03853	0.43419	0.40207	0.01410
0.18	0.06862	1.17828	1.14848	0.01580	0.04444	0.48384	0.45274	0.01495
0.20	0.07871	1.17645	1.15405	0.01651	0.05094	0.52703	0.49838	0.01570
0.22	0.08954	1.17254	1.15890	0.01711	0.05813	0.56438	0.53945	0.01636
0.24	0.10116	1.16677	1.16310	0.01765	0.06602	0.59639	0.57652	0.01693
0.26	0.11358	1.15925	1.16681	0.01812	0.07468	0.62362	0.61005	0.01744
0.28	0.12683	1.15016	1.17011	0.01853	0.08411	0.64649	0.64048	0.01789
0.30	0.14092	1.13955	1.17304	0.01891	0.09437	0.66544	0.66817	0.01829
0.32	0.15588	1.12750	1.17568	0.01925	0.10544	0.68082	0.69346	0.01864
0.34	0.17170	1.11405	1.17806	0.01956	0.11736	0.69292	0.71664	0.01898
0.36	0.18840	1.09929	1.18021	0.01982	0.13013	0.70200	0.73793	0.01927
0.38	0.20598	1.08323	1.18218	0.02007	0.14378	0.70829	0.75755	0.01956
0.40	0.22447	1.06591	1.18399	0.02031	0.15831	0.71196	0.77568	0.01980
0.42	0.24384	1.04735	1.18563	0.02053	0.17371	0.71318	0.79250	0.02004
0.44	0.26413	1.02759	1.18715	0.02071	0.19001	0.71212	0.80811	0.02026
0.46	0.28532	1.00663	1.18856	0.02089	0.20720	0.70890	0.82267	0.02044
0.48	0.30742	0.98451	1.18986	0.02107	0.22530	0.70362	0.83625	0.02062
0.50	0.33043	0.96123	1.19106	0.02122	0.24428	0.69639	0.84895	0.02079
0.52	0.35436	0.93681	1.19219	0.02136	0.26419	0.68725	0.86087	0.02095
0.54	0.37920	0.91126	1.19324	0.02149	0.28501	0.67635	0.87206	0.02110
0.56	0.40497	0.88457	1.19424	0.02163	0.30672	0.66368	0.88258	0.02125
0.58	0.43166	0.85675	1.19517	0.02174	0.32936	0.64939	0.89250	0.02137
0.60	0.45926	0.82785	1.19605	0.02186	0.35292	0.63344	0.90188	0.02149
0.62	0.48779	0.79783	1.19686	0.02196	0.37739	0.61593	0.91073	0.02161
0.64	0.51724	0.76672	1.19763	0.02206	0.40279	0.59690	0.91913	0.02172
0.66	0.54763	0.73452	1.19835	0.02216	0.42911	0.57636	0.92707	0.02181
0.68	0.57893	0.70122	1.19906	0.02225	0.45633	0.55440	0.93462	0.02192
0.70	0.61117	0.66686	1.19971	0.02233	0.48450	0.53096	0.94181	0.02202
0.72	0.64434	0.63141	1.20033	0.02241	0.51359	0.50614	0.94864	0.02210
0.74	0.67843	0.59488	1.20093	0.02248	0.54361	0.47996	0.95516	0.02218
0.76	0.71346	0.55729	1.20148	0.02255	0.57455	0.45244	0.96137	0.02226
0.78	0.74942	0.51863	1.20202	0.02263	0.60642	0.42357	0.96732	0.02233
0.80	0.78629	0.47889	1.20253	0.02270	0.63921	0.39339	0.97298	0.02241
0.82	0.82411	0.43808	1.20302	0.02276	0.67294	0.36194	0.97841	0.02247
0.84	0.86285	0.39623	1.20349	0.02281	0.70759	0.32918	0.98362	0.02255
0.86	0.90252	0.35330	1.20394	0.02287	0.74317	0.29518	0.98861	0.02261
0.88	0.94314	0.30931	1.20437	0.02293	0.77969	0.25993	0.99340	0.02267
0.90	0.98469	0.26427	1.20477	0.02298	0.81714	0.22345	0.99799	0.02273
0.92	1.02715	0.21817	1.20516	0.02303	0.85551	0.18576	1.00240	0.02278
0.94	1.07058	0.17102	1.20556	0.02308	0.89482	0.14682	1.00666	0.02283
0.96	1.11493	0.12283	1.20590	0.02313	0.93508	0.10669	1.01075	0.02289
0.98	1.16021	0.07355	1.20624	0.02318	0.97624	0.06538	1.01469	0.02293
1.00	1.20641	0.02324	1.20659	0.02322	1.01834	0.02289	1.01848	0.02298

TABLE 3 (continued)

$\tau_1 = 0.25$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ
0	0	1.00000	1.00000	0	0	0	0	0
0.02	0.00646	1.05885	1.03686	0.00298	0.00451	0.01667	0.01412	0.00221
0.04	0.01367	1.09705	1.06853	0.00586	0.00949	0.03828	0.03204	0.00460
0.06	0.02136	1.12663	1.08591	0.00853	0.01465	0.07437	0.06290	0.00703
0.08	0.02933	1.14951	1.10472	0.01088	0.01976	0.12535	0.10844	0.00930
0.10	0.03758	1.16680	1.12050	0.01294	0.02480	0.18433	0.16243	0.01133
0.12	0.04616	1.17949	1.13376	0.01468	0.02986	0.24495	0.21911	0.01311
0.14	0.05517	1.18821	1.14498	0.01619	0.03511	0.30345	0.27490	0.01466
0.16	0.06470	1.19360	1.15454	0.01748	0.04066	0.35789	0.32796	0.01602
0.18	0.07481	1.19604	1.16279	0.01859	0.04664	0.40753	0.37755	0.01721
0.20	0.08559	1.19595	1.16994	0.01956	0.05314	0.45205	0.42340	0.01823
0.22	0.09707	1.19361	1.17623	0.02043	0.06023	0.49168	0.46563	0.01916
0.24	0.10931	1.18920	1.18173	0.02118	0.06797	0.52653	0.50445	0.01997
0.26	0.12232	1.18288	1.18663	0.02187	0.07641	0.55696	0.54010	0.02070
0.28	0.13614	1.17482	1.19102	0.02247	0.08561	0.58324	0.57286	0.02135
0.30	0.15081	1.16507	1.19495	0.02300	0.09556	0.60573	0.60306	0.02195
0.32	0.16631	1.15377	1.19851	0.02351	0.10633	0.62465	0.63091	0.02248
0.34	0.18269	1.14092	1.20174	0.02395	0.11791	0.64027	0.65665	0.02297
0.36	0.19993	1.12663	1.20468	0.02437	0.13032	0.65281	0.68050	0.02341
0.38	0.21806	1.11097	1.20736	0.02474	0.14360	0.66243	0.70264	0.02382
0.40	0.23709	1.09394	1.20983	0.02508	0.15774	0.66934	0.72323	0.02421
0.42	0.25702	1.07556	1.21210	0.02540	0.17275	0.67375	0.74241	0.02455
0.44	0.27785	1.05591	1.21420	0.02570	0.18865	0.67572	0.76035	0.02487
0.46	0.29961	1.03496	1.21614	0.02596	0.20544	0.67540	0.77711	0.02517
0.48	0.32228	1.01278	1.21794	0.02622	0.22314	0.67290	0.79284	0.02545
0.50	0.34588	0.98937	1.21963	0.02646	0.24174	0.66832	0.80762	0.02571
0.52	0.37038	0.96472	1.22120	0.02667	0.26126	0.66174	0.82153	0.02596
0.54	0.39584	0.93890	1.22267	0.02689	0.28169	0.65325	0.83463	0.02618
0.56	0.42222	0.91188	1.22406	0.02707	0.30303	0.64289	0.84699	0.02639
0.58	0.44953	0.88365	1.22535	0.02725	0.32530	0.63079	0.85869	0.02659
0.60	0.47778	0.85428	1.22656	0.02743	0.34850	0.61692	0.86975	0.02678
0.62	0.50697	0.82374	1.22772	0.02759	0.37263	0.60139	0.88023	0.02696
0.64	0.53710	0.79206	1.22880	0.02774	0.39769	0.58419	0.89020	0.02713
0.66	0.56816	0.75920	1.22984	0.02789	0.42368	0.56545	0.89966	0.02728
0.68	0.60018	0.72523	1.23082	0.02803	0.45060	0.54512	0.90867	0.02744
0.70	0.63315	0.69012	1.23173	0.02816	0.47847	0.52329	0.91725	0.02759
0.72	0.66705	0.65389	1.23261	0.02827	0.50728	0.49996	0.92543	0.02772
0.74	0.70189	0.61651	1.23346	0.02839	0.53702	0.47517	0.93324	0.02786
0.76	0.73769	0.57802	1.23424	0.02850	0.56771	0.44892	0.94072	0.02798
0.78	0.77443	0.53842	1.23500	0.02861	0.59935	0.42127	0.94787	0.02809
0.80	0.81213	0.49769	1.23573	0.02872	0.63193	0.39224	0.95470	0.02821
0.82	0.85078	0.45585	1.23643	0.02881	0.66545	0.36180	0.96126	0.02832
0.84	0.89037	0.41289	1.23710	0.02891	0.69991	0.33005	0.96754	0.02843
0.86	0.93092	0.36884	1.23773	0.02899	0.73532	0.29697	0.97358	0.02853
0.88	0.97242	0.32368	1.23834	0.02908	0.77169	0.26254	0.97939	0.02863
0.90	1.01487	0.27741	1.23892	0.02916	0.80901	0.22681	0.98496	0.02872
0.92	1.05827	0.23005	1.23949	0.02924	0.84726	0.18978	0.99032	0.02880
0.94	1.10263	0.18159	1.24001	0.02931	0.88648	0.15146	0.99549	0.02889
0.96	1.14793	0.13202	1.24053	0.02939	0.92664	0.11189	1.00046	0.02896
0.98	1.19419	0.08135	1.24103	0.02946	0.96774	0.07107	1.00527	0.02905
1.00	1.24140	0.02961	1.24151	0.02952	1.00981	0.02897	1.00990	0.02913

TABLE 3 (continued)

$\tau_1 = 0.50$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ
0	0	1.00000	1.00000	0	0	0	0	0
0.02	0.00777	1.06082	1.03857	0.00361	0.00447	0.00975	0.01029	0.00219
0.04	0.01647	1.10127	1.06735	0.00719	0.00947	0.02169	0.02183	0.00457
0.06	0.02600	1.13438	1.09252	0.01069	0.01491	0.03521	0.03462	0.00711
0.08	0.03625	1.16168	1.11511	0.01408	0.02070	0.05194	0.04981	0.00979
0.10	0.04715	1.18437	1.13565	0.01733	0.02675	0.07296	0.06898	0.01252
0.12	0.05866	1.20334	1.15440	0.02039	0.03299	0.09861	0.09247	0.01524
0.14	0.07074	1.21865	1.17150	0.02325	0.03938	0.12812	0.11981	0.01790
0.16	0.08336	1.23052	1.18710	0.02591	0.04591	0.16027	0.15009	0.02044
0.18	0.09658	1.23939	1.20130	0.02836	0.05265	0.19390	0.18227	0.02285
0.20	0.11040	1.24541	1.21427	0.03063	0.05965	0.22791	0.21554	0.02512
0.22	0.12487	1.24882	1.22611	0.03273	0.06695	0.26151	0.24916	0.02726
0.24	0.14001	1.24970	1.23696	0.03466	0.07464	0.29402	0.28264	0.02926
0.26	0.15586	1.24828	1.24692	0.03644	0.08277	0.32503	0.31560	0.03112
0.28	0.17244	1.24462	1.25608	0.03809	0.09140	0.35427	0.34774	0.03287
0.30	0.18979	1.23887	1.26454	0.03963	0.10057	0.38148	0.37894	0.03449
0.32	0.20793	1.23110	1.27239	0.04104	0.11035	0.40653	0.40910	0.03603
0.34	0.22688	1.22145	1.27965	0.04236	0.12076	0.42933	0.43813	0.03745
0.36	0.24668	1.20997	1.28638	0.04359	0.13186	0.44985	0.46601	0.03879
0.38	0.26734	1.19672	1.29267	0.04474	0.14367	0.46801	0.49278	0.04005
0.40	0.28887	1.18175	1.29855	0.04581	0.15622	0.48390	0.51843	0.04123
0.42	0.31128	1.16510	1.30399	0.04681	0.16954	0.49753	0.54299	0.04234
0.44	0.33461	1.14686	1.30912	0.04777	0.18367	0.50889	0.56648	0.04338
0.46	0.35884	1.12699	1.31392	0.04865	0.19860	0.51800	0.58899	0.04436
0.48	0.38399	1.10557	1.31844	0.04948	0.21437	0.52495	0.61051	0.04529
0.50	0.41009	1.08266	1.32272	0.05026	0.23100	0.52970	0.63113	0.04617
0.52	0.43711	1.05823	1.32672	0.05101	0.24848	0.53245	0.65086	0.04700
0.54	0.46509	1.03232	1.33050	0.05172	0.26684	0.53315	0.66977	0.04779
0.56	0.49402	1.00496	1.33409	0.05238	0.28610	0.53179	0.68789	0.04854
0.58	0.52392	0.97616	1.33749	0.05302	0.30626	0.52851	0.70526	0.04925
0.60	0.55479	0.94600	1.34072	0.05361	0.32735	0.52323	0.72192	0.04992
0.62	0.58663	0.91442	1.34377	0.05418	0.34936	0.51606	0.73790	0.05058
0.64	0.61945	0.88144	1.34670	0.05473	0.37229	0.50707	0.75326	0.05119
0.66	0.65325	0.84708	1.34947	0.05524	0.39616	0.49629	0.76802	0.05177
0.68	0.68803	0.81138	1.35212	0.05573	0.42097	0.48364	0.78221	0.05234
0.70	0.72381	0.77433	1.35463	0.05621	0.44675	0.46929	0.79584	0.05287
0.72	0.76058	0.73592	1.35703	0.05665	0.47347	0.45322	0.80898	0.05339
0.74	0.79836	0.69621	1.35936	0.05708	0.50118	0.43543	0.82164	0.05387
0.76	0.83714	0.65517	1.36154	0.05750	0.52985	0.41593	0.83381	0.05435
0.78	0.87690	0.61279	1.36367	0.05789	0.55947	0.39482	0.84555	0.05480
0.80	0.91768	0.56912	1.36568	0.05828	0.59008	0.37206	0.85689	0.05523
0.82	0.95947	0.52414	1.36763	0.05864	0.62167	0.34767	0.86781	0.05564
0.84	1.00227	0.47788	1.36948	0.05898	0.65426	0.32169	0.87837	0.05605
0.86	1.04610	0.43032	1.37127	0.05933	0.68785	0.29411	0.88857	0.05643
0.88	1.09092	0.38145	1.37301	0.05965	0.72240	0.26502	0.89843	0.05682
0.90	1.13675	0.33131	1.37467	0.05995	0.75796	0.23436	0.90797	0.05718
0.92	1.18360	0.27988	1.37630	0.06026	0.79450	0.20222	0.91719	0.05752
0.94	1.23148	0.22717	1.37783	0.06055	0.83204	0.16852	0.92614	0.05786
0.96	1.28037	0.17320	1.37933	0.06082	0.87060	0.13333	0.93478	0.05819
0.98	1.33028	0.11793	1.38078	0.06109	0.91015	0.09669	0.94318	0.05850
1.00	1.38121	0.06143	1.38218	0.06136	0.95071	0.05852	0.95133	0.05881

TABLE 3 (continued)

$\tau_1 = 1.00$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ
0	0	1.0000	1.00000	0	0	0	0	0
0.02	0.0094	1.0623	1.04062	0.00439	0.0042	0.0056	0.00728	0.00203
0.04	0.0199	1.1044	1.07152	0.00883	0.0089	0.0117	0.01528	0.00424
0.06	0.0314	1.1387	1.09898	0.01325	0.0140	0.0187	0.02385	0.00662
0.08	0.0439	1.1682	1.12420	0.01764	0.0195	0.0257	0.03295	0.00913
0.10	0.0572	1.1934	1.14767	0.02198	0.0254	0.0337	0.04278	0.01180
0.12	0.0715	1.2153	1.16978	0.02624	0.0317	0.0424	0.05327	0.01459
0.14	0.0865	1.2337	1.19067	0.03042	0.0383	0.0523	0.06470	0.01749
0.16	0.1026	1.2496	1.21053	0.03450	0.0452	0.0636	0.07729	0.02049
0.18	0.1192	1.2624	1.22939	0.03848	0.0524	0.0763	0.09113	0.02353
0.20	0.1367	1.2724	1.24734	0.04233	0.0598	0.0899	0.10623	0.02663
0.22	0.1550	1.2801	1.26438	0.04607	0.0676	0.1048	0.12253	0.02974
0.24	0.1740	1.2854	1.28062	0.04967	0.0756	0.1206	0.14003	0.03285
0.26	0.1938	1.2883	1.29609	0.05314	0.0838	0.1376	0.15858	0.03592
0.28	0.2145	1.2889	1.31081	0.05648	0.0924	0.1549	0.17802	0.03896
0.30	0.2359	1.2875	1.32484	0.05968	0.1013	0.1727	0.19818	0.04195
0.32	0.2581	1.2841	1.33818	0.06276	0.1104	0.1903	0.21884	0.04487
0.34	0.2810	1.2782	1.35087	0.06571	0.1200	0.2079	0.23996	0.04773
0.36	0.3049	1.2707	1.36302	0.06855	0.1300	0.2253	0.26138	0.05050
0.38	0.3295	1.2610	1.37460	0.07127	0.1404	0.2418	0.28295	0.05321
0.40	0.3550	1.2494	1.38562	0.07387	0.1513	0.2576	0.30463	0.05583
0.42	0.3814	1.2360	1.39613	0.07637	0.1627	0.2726	0.32626	0.05839
0.44	0.4086	1.2205	1.40619	0.07875	0.1746	0.2868	0.34777	0.06086
0.46	0.4368	1.2034	1.41583	0.08105	0.1871	0.2997	0.36917	0.06327
0.48	0.4658	1.1844	1.42504	0.08325	0.2002	0.3119	0.39036	0.06558
0.50	0.4957	1.1637	1.43379	0.08536	0.2138	0.3226	0.41128	0.06782
0.52	0.5265	1.1411	1.44222	0.08739	0.2282	0.3318	0.43191	0.06999
0.54	0.5582	1.1169	1.45029	0.08934	0.2432	0.3399	0.45223	0.07208
0.56	0.5909	1.0909	1.45799	0.09121	0.2589	0.3467	0.47220	0.07411
0.58	0.6245	1.0633	1.46539	0.09300	0.2753	0.3520	0.49180	0.07608
0.60	0.6592	1.0340	1.47253	0.09475	0.2925	0.3557	0.51108	0.07797
0.62	0.6948	1.0030	1.47939	0.09640	0.3104	0.3581	0.52996	0.07981
0.64	0.7312	0.9705	1.48596	0.09801	0.3291	0.3593	0.54845	0.08160
0.66	0.7689	0.9363	1.49231	0.09956	0.3486	0.3585	0.56655	0.08332
0.68	0.8073	0.9006	1.49839	0.10105	0.3689	0.3562	0.58430	0.08498
0.70	0.8469	0.8631	1.50429	0.10250	0.3900	0.3525	0.60167	0.08659
0.72	0.8874	0.8242	1.50997	0.10388	0.4121	0.3472	0.61864	0.08815
0.74	0.9289	0.7838	1.51544	0.10522	0.4349	0.3404	0.63524	0.08968
0.76	0.9714	0.7417	1.52072	0.10652	0.4585	0.3320	0.65147	0.09115
0.78	1.0150	0.6981	1.52580	0.10777	0.4832	0.3220	0.66735	0.09256
0.80	1.0597	0.6530	1.53075	0.10899	0.5086	0.3102	0.68285	0.09396
0.82	1.1051	0.6063	1.53553	0.11016	0.5350	0.2972	0.69803	0.09530
0.84	1.1519	0.5581	1.54012	0.11129	0.5624	0.2825	0.71283	0.09661
0.86	1.1994	0.5084	1.54456	0.11239	0.5906	0.2659	0.72731	0.09788
0.88	1.2481	0.4572	1.54887	0.11344	0.6197	0.2481	0.74146	0.09912
0.90	1.2979	0.4046	1.55305	0.11447	0.6498	0.2285	0.75531	0.10031
0.92	1.3488	0.3504	1.55707	0.11546	0.6808	0.2075	0.76882	0.10148
0.94	1.4006	0.2947	1.56098	0.11644	0.7128	0.1850	0.78202	0.10260
0.96	1.4537	0.2376	1.56477	0.11738	0.7459	0.1608	0.79495	0.10369
0.98	1.5074	0.1790	1.56846	0.11829	0.7797	0.1350	0.80759	0.10477
1.00	1.5624	0.1190	1.57207	0.11918	0.8146	0.1076	0.81995	0.10581

TABLE 4

THE FUNCTIONS $\gamma_1(\mu)$ AND $\gamma_n(\mu)$ IN TERMS OF WHICH THE EFFECT OF A GROUND REFLECTING ACCORDING TO LAMBERT'S LAW IS EXPRESSED

	$\tau_1 = 0.05$		$\tau_1 = 0.10$		$\tau_1 = 0.15$		$\tau_1 = 0.20$	
μ	γ_1	γ_n	γ_1	γ_n	γ_1	γ_n	γ_1	γ_n
0	0.44337	0.46289	0.41003	0.43831	0.38434	0.41818	0.36317	0.40088
0.02	0.52227	0.52860	0.45127	0.46718	0.41951	0.44245	0.39547	0.42351
0.04	0.63542	0.63805	0.51134	0.52044	0.45673	0.47234	0.42440	0.44550
0.06	0.71309	0.71449	0.57603	0.58168	0.50302	0.51380	0.45877	0.47452
0.08	0.76501	0.76588	0.63090	0.63468	0.54933	0.55708	0.49617	0.50810
0.10	0.80147	0.80207	0.67511	0.67781	0.59111	0.59689	0.53278	0.54204
0.12	0.82831	0.82874	0.71068	0.71272	0.62745	0.63189	0.56668	0.57403
0.14	0.84883	0.84916	0.73964	0.74121	0.65871	0.66222	0.59728	0.60323
0.16	0.86501	0.86528	0.76353	0.76478	0.68561	0.68844	0.62462	0.62953
0.18	0.87809	0.87830	0.78353	0.78455	0.70886	0.71120	0.64895	0.65307
0.20	0.88886	0.88903	0.80049	0.80134	0.72909	0.73104	0.67063	0.67413
0.22	0.89789	0.89804	0.81502	0.81574	0.74680	0.74846	0.68999	0.69300
0.24	0.90557	0.90569	0.82761	0.82823	0.76241	0.76384	0.70734	0.70995
0.26	0.91218	0.91229	0.83862	0.83914	0.77627	0.77751	0.72295	0.72522
0.28	0.91792	0.91803	0.84832	0.84877	0.78863	0.78971	0.73705	0.73906
0.30	0.92296	0.92305	0.85693	0.85734	0.79974	0.80068	0.74984	0.75162
0.32	0.92742	0.92750	0.86462	0.86497	0.80975	0.81059	0.76148	0.76307
0.34	0.93140	0.93146	0.87154	0.87185	0.81882	0.81956	0.77211	0.77354
0.36	0.93496	0.93502	0.87778	0.87807	0.82709	0.82774	0.78187	0.78315
0.38	0.93816	0.93822	0.88345	0.88372	0.83463	0.83522	0.79084	0.79200
0.40	0.94107	0.94112	0.88862	0.88886	0.84156	0.84209	0.79911	0.80017
0.42	0.94372	0.94376	0.89335	0.89357	0.84793	0.84841	0.80676	0.80772
0.44	0.94613	0.94618	0.89770	0.89790	0.85381	0.85425	0.81387	0.81474
0.46	0.94836	0.94840	0.90171	0.90188	0.85926	0.85966	0.82047	0.82128
0.48	0.95040	0.95043	0.90541	0.90559	0.86432	0.86468	0.82663	0.82737
0.50	0.95228	0.95233	0.90886	0.90901	0.86903	0.86937	0.83239	0.83307
0.52	0.95403	0.95407	0.91205	0.91219	0.87342	0.87373	0.83778	0.83841
0.54	0.95566	0.95570	0.91504	0.91518	0.87754	0.87782	0.84284	0.84341
0.56	0.95717	0.95720	0.91782	0.91795	0.88140	0.88165	0.84758	0.84813
0.58	0.95859	0.95862	0.92044	0.92055	0.88502	0.88525	0.85206	0.85257
0.60	0.95991	0.95994	0.92288	0.92300	0.88842	0.88864	0.85628	0.85676
0.62	0.96116	0.96119	0.92519	0.92529	0.89163	0.89184	0.86027	0.86072
0.64	0.96232	0.96235	0.92736	0.92746	0.89467	0.89486	0.86404	0.86447
0.66	0.96342	0.96345	0.92940	0.92950	0.89753	0.89771	0.86762	0.86802
0.68	0.96446	0.96448	0.93134	0.93143	0.90025	0.90043	0.87102	0.87139
0.70	0.96544	0.96546	0.93317	0.93326	0.90283	0.90299	0.87424	0.87460
0.72	0.96636	0.96639	0.93491	0.93499	0.90527	0.90543	0.87732	0.87765
0.74	0.96724	0.96727	0.93656	0.93665	0.90760	0.90775	0.88024	0.88055
0.76	0.96808	0.96810	0.93813	0.93821	0.90981	0.90996	0.88303	0.88333
0.78	0.96887	0.96889	0.93963	0.93969	0.91192	0.91206	0.88570	0.88597
0.80	0.96962	0.96964	0.94105	0.94112	0.91393	0.91407	0.88824	0.88850
0.82	0.97034	0.97036	0.94240	0.94247	0.91585	0.91599	0.89067	0.89092
0.84	0.97102	0.97105	0.94370	0.94376	0.91769	0.91783	0.89300	0.89325
0.86	0.97168	0.97169	0.94494	0.94500	0.91945	0.91959	0.89523	0.89547
0.88	0.97231	0.97233	0.94613	0.94619	0.92115	0.92127	0.89737	0.89760
0.90	0.97290	0.97293	0.94726	0.94731	0.92277	0.92289	0.89944	0.89965
0.92	0.97347	0.97350	0.94835	0.94841	0.92432	0.92444	0.90141	0.90161
0.94	0.97402	0.97404	0.94940	0.94945	0.92581	0.92594	0.90331	0.90352
0.96	0.97455	0.97457	0.95040	0.95045	0.92725	0.92736	0.90515	0.90533
0.98	0.97506	0.97507	0.95137	0.95142	0.92863	0.92875	0.90691	0.90707
1.00	0.97554	0.97556	0.95229	0.95235	0.92996	0.93007	0.90860	0.90877

TABLE 4 (continued)

μ	$\tau_1 = 0.25$		$\tau_1 = 0.50$		$\tau_1 = 1.00$	
	γ_l	γ_r	γ_l	γ_r	γ_l	γ_r
0	0.34514	0.38558	0.28122	0.32744	0.21053	0.25592
0.02	0.37544	0.40703	0.30508	0.34507	0.22828	0.26954
0.04	0.40078	0.42604	0.32429	0.35995	0.24234	0.28090
0.06	0.42840	0.44833	0.34230	0.37409	0.25525	0.29156
0.08	0.45894	0.47474	0.35994	0.38816	0.26754	0.30181
0.10	0.49039	0.50305	0.37779	0.40284	0.27948	0.31181
0.12	0.52094	0.53124	0.39614	0.41830	0.29116	0.32165
0.14	0.54965	0.55813	0.41479	0.43440	0.30270	0.33142
0.16	0.57610	0.58319	0.43345	0.45089	0.31426	0.34122
0.18	0.60028	0.60628	0.45193	0.46745	0.32575	0.35107
0.20	0.62228	0.62741	0.47001	0.48387	0.33714	0.36101
0.22	0.64231	0.64673	0.48755	0.49995	0.34853	0.37099
0.24	0.66052	0.66437	0.50441	0.51556	0.35992	0.38104
0.26	0.67712	0.68049	0.52058	0.53065	0.37125	0.39114
0.28	0.69228	0.69525	0.53603	0.54513	0.38251	0.40123
0.30	0.70617	0.70880	0.55075	0.55900	0.39369	0.41129
0.32	0.71893	0.72126	0.56475	0.57228	0.40472	0.42126
0.34	0.73066	0.73276	0.57806	0.58492	0.41554	0.43114
0.36	0.74150	0.74338	0.59071	0.59698	0.42624	0.44092
0.38	0.75152	0.75323	0.60274	0.60849	0.43664	0.45055
0.40	0.76082	0.76236	0.61415	0.61944	0.44685	0.46004
0.42	0.76947	0.77087	0.62500	0.62986	0.45685	0.46933
0.44	0.77753	0.77880	0.63533	0.63979	0.46660	0.47844
0.46	0.78505	0.78622	0.64513	0.64926	0.47611	0.48737
0.48	0.79210	0.79316	0.65446	0.65829	0.48544	0.49611
0.50	0.79871	0.79967	0.66334	0.66690	0.49449	0.50463
0.52	0.80491	0.80580	0.67182	0.67512	0.50325	0.51295
0.54	0.81075	0.81157	0.67990	0.68297	0.51180	0.52107
0.56	0.81626	0.81701	0.68760	0.69048	0.52014	0.52898
0.58	0.82145	0.82215	0.69497	0.69765	0.52824	0.53669
0.60	0.82637	0.82701	0.70202	0.70452	0.53614	0.54422
0.62	0.83102	0.83162	0.70875	0.71111	0.54382	0.55155
0.64	0.83544	0.83598	0.71521	0.71741	0.55129	0.55867
0.66	0.83963	0.84015	0.72139	0.72347	0.55856	0.56563
0.68	0.84362	0.84409	0.72731	0.72927	0.56561	0.57239
0.70	0.84742	0.84786	0.73301	0.73484	0.57247	0.57899
0.72	0.85104	0.85143	0.73848	0.74020	0.57917	0.58541
0.74	0.85449	0.85485	0.74375	0.74538	0.58567	0.59167
0.76	0.85778	0.85812	0.74881	0.75032	0.59199	0.59776
0.78	0.86093	0.86125	0.75368	0.75510	0.59816	0.60369
0.80	0.86395	0.86424	0.75837	0.75969	0.60414	0.60947
0.82	0.86684	0.86712	0.76289	0.76413	0.60995	0.61511
0.84	0.86961	0.86985	0.76726	0.76841	0.61565	0.62060
0.86	0.87227	0.87251	0.77147	0.77254	0.62113	0.62594
0.88	0.87482	0.87504	0.77554	0.77654	0.62650	0.63115
0.90	0.87728	0.87746	0.77947	0.78039	0.63176	0.63623
0.92	0.87964	0.87981	0.78327	0.78413	0.63687	0.64118
0.94	0.88191	0.88207	0.78695	0.78774	0.64188	0.64600
0.96	0.88410	0.88424	0.79050	0.79123	0.64675	0.65072
0.98	0.88622	0.88633	0.79395	0.79461	0.65144	0.65531
1.00	0.88825	0.88835	0.79728	0.79790	0.65603	0.65981

TABLE 5

THE ILLUMINATION AND POLARIZATION OF THE SKY FOR VARIOUS ZENITH DISTANCES

OF THE SUN AND FOR AN ATMOSPHERE OF OPTICAL THICKNESS $\tau_1 = 0.15$

μ	$\mu_0 = 0;\ \varphi = 0^\circ$		$\mu_0 = 0;\ \varphi = 10^\circ$			$\mu_0 = 0;\ \varphi = 20^\circ$			$\mu_0 = 0;\ \varphi = 30^\circ$			$\mu_0 = 0;\ \varphi = 40^\circ$		
	I_1+I_r	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ
0	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.04	0.6465	-15	0.6398	- 0.8	-16	0.6205	- 1.3	-20	0.5911	- 1.4	-26	0.5549	- 1.3	-34
0.08	1.1218	- 8	1.1079	- 3.3	-10	1.0679	- 4.5	-14	1.0065	- 4.3	-21	0.9313	- 3.6	-31
0.12	1.2438	- 6	1.2278	- 6.5	- 8	1.1817	- 8.1	-13	1.1110	- 7.2	-20	1.0244	- 5.9	-30
0.16	1.2140	- 5	1.1982	-10.2	- 7	1.1527	-11.7	-12	1.0829	-10.2	-20	0.9973	- 8.1	-30
0.20	1.1369	- 4	1.1220	-14.7	- 6	1.0793	-15.6	-12	1.0139	-13.1	-20	0.9336	-10.4	-31
0.24	1.0492	- 3	1.0356	-20.2	- 6	0.9963	-19.7	-12	0.9361	-16.1	-20	0.8623	-12.6	-31
0.28	0.9637	- 2	0.9513	-26.9	- 6	0.9155	-23.9	-12	0.8606	-19.2	-20	0.7934	-14.9	-31
0.32	0.8844	0	0.8731	-34.8	- 6	0.8406	-28.2	-12	0.7908	-22.2	-21	0.7298	-17.1	-32
0.36	0.8121	+ 1	0.8019	-42.9	- 6	0.7725	-32.6	-13	0.7274	-25.2	-22	0.6721	-19.4	-33
0.40	0.7466	+ 3	0.7374	+39.7	+ 7	0.7108	-36.8	-14	0.6701	-28.2	-23	0.6201	-21.6	-34
0.44	0.6872	+ 5	0.6789	+33.6	+ 8	0.6549	-40.9	-15	0.6182	-31.2	-24	0.5732	-23.9	-35
0.48	0.6332	+ 7	0.6257	+28.8	+10	0.6042	-44.8	-16	0.5712	-34.1	-25	0.5307	-26.1	-36
0.52	0.5838	+10	0.5771	+25.1	+12	0.5579	+41.8	+18	0.5283	-36.9	-27	0.4921	-28.3	-38
0.56	0.5385	+13	0.5326	+22.2	+15	0.5154	+38.6	+21	0.4891	-39.6	-29	0.4568	-30.4	-40
0.60	0.4968	+16	0.4915	+19.9	+18	0.4763	+35.8	+23	0.4530	-42.1	-32	0.4244	-32.5	-42
0.64	0.4580	+19	0.4534	+18.0	+21	0.4401	+33.3	+27	0.4196	-44.5	-34	0.3945	-34.6	-44
0.68	0.4220	+24	0.4179	+16.5	+25	0.4064	+31.1	+30	0.3886	+43.2	+38	0.3669	-36.6	-47
0.72	0.3882	+28	0.3848	+15.2	+30	0.3749	+29.1	+34	0.3597	+41.1	+41	0.3411	-38.5	-51
0.76	0.3566	+34	0.3537	+14.1	+35	0.3454	+27.3	+39	0.3326	+39.1	+46	0.3170	-40.4	-54
0.80	0.3267	+40	0.3244	+13.2	+41	0.3176	+25.8	+45	0.3071	+37.3	+51	0.2944	-42.2	-59
0.84	0.2985	+47	0.2966	+12.4	+48	0.2913	+24.4	+52	0.2831	+35.6	+57	0.2731	-43.9	-63
0.88	0.2717	+56	0.2703	+11.7	+56	0.2664	+23.1	+59	0.2603	+34.1	+63	0.2529	+44.4	+69
0.92	0.2461	+65	0.2452	+11.1	+66	0.2427	+22.0	+68	0.2387	+32.6	+71	0.2338	+42.9	+75
0.96	0.2218	+77	0.2213	+10.5	+77	0.2200	+20.9	+79	0.2181	+31.2	+80	0.2157	+41.4	+83
1.00	0.1984	+91	0.1984	+10.0	+91	0.1984	+20.0	+91	0.1984	+30.0	+91	0.1984	+40.0	+91
0.96	0.2218	+77	0.2213	+10.5	+77	0.2200	+20.9	+79	0.2181	+31.2	+80	0.2157	+41.4	+83
0.92	0.2461	+65	0.2452	+11.1	+66	0.2427	+22.0	+68	0.2387	+32.6	+71	0.2338	+42.9	+75
0.88	0.2717	+56	0.2703	+11.7	+56	0.2664	+23.1	+59	0.2603	+34.1	+63	0.2529	+44.4	+69
0.84	0.2985	+47	0.2966	+12.4	+48	0.2913	+24.4	+52	0.2831	+35.6	+57	0.2731	-43.9	-63
0.80	0.3267	+40	0.3244	+13.2	+41	0.3176	+25.8	+45	0.3071	+37.3	+51	0.2944	-42.2	-59
0.76	0.3566	+34	0.3537	+14.1	+35	0.3454	+27.3	+39	0.3326	+39.1	+46	0.3170	-40.4	-54
0.72	0.3882	+28	0.3848	+15.2	+30	0.3749	+29.1	+34	0.3597	+41.1	+41	0.3411	-38.5	-51
0.68	0.4220	+24	0.4179	+16.5	+25	0.4064	+31.1	+30	0.3886	+43.2	+38	0.3669	-36.6	-47
0.64	0.4580	+19	0.4534	+18.0	+21	0.4401	+33.3	+27	0.4196	-44.5	-34	0.3945	-34.6	-44
0.60	0.4968	+16	0.4915	+19.9	+18	0.4763	+35.8	+23	0.4530	-42.1	-32	0.4244	-32.5	-42
0.56	0.5385	+13	0.5326	+22.2	+15	0.5154	+38.6	+21	0.4891	-39.6	-29	0.4568	-30.4	-40
0.52	0.5838	+10	0.5771	+25.1	+12	0.5579	+41.8	+18	0.5283	-36.9	-27	0.4921	-28.3	-38
0.48	0.6332	+ 7	0.6257	+28.8	+10	0.6042	-44.8	-16	0.5712	-34.1	-25	0.5307	-26.1	-36
0.44	0.6872	+ 5	0.6789	+33.6	+ 8	0.6549	-40.9	-15	0.6182	-31.2	-24	0.5732	-23.9	-35
0.40	0.7466	+ 3	0.7374	+39.7	+ 7	0.7108	-36.8	-14	0.6701	-28.2	-23	0.6201	-21.6	-34
0.36	0.8121	+ 1	0.8019	-42.9	- 6	0.7725	-32.6	-13	0.7274	-25.2	-22	0.6721	-19.4	-33
0.32	0.8844	0	0.8731	-34.8	- 6	0.8406	-28.2	-12	0.7908	-22.2	-21	0.7298	-17.1	-32
0.28	0.9637	- 2	0.9513	-26.9	- 6	0.9155	-23.9	-12	0.8606	-19.2	-20	0.7934	-14.9	-31
0.24	1.0492	- 3	1.0356	-20.2	- 6	0.9963	-19.7	-12	0.9361	-16.1	-20	0.8623	-12.6	-31
0.20	1.1369	- 4	1.1220	-14.7	- 6	1.0793	-15.6	-12	1.0139	-13.1	-20	0.9336	-10.4	-31
0.16	1.2140	- 5	1.1982	-10.2	- 7	1.1527	-11.7	-12	1.0829	-10.2	-20	0.9973	- 8.1	-30
0.12	1.2438	- 6	1.2278	- 6.5	- 8	1.1817	- 8.1	-13	1.1110	- 7.2	-20	1.0244	- 5.9	-30
0.08	1.1218	- 8	1.1079	- 3.3	-10	1.0679	- 4.5	-14	1.0065	- 4.3	-21	0.9313	- 3.6	-31
0.04	0.6465	-15	0.6398	- 0.8	-16	0.6205	- 1.3	-20	0.5911	- 1.4	-26	0.5549	- 1.3	-34
0	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .

TABLE 5 (continued)

μ	$\mu_o = 0; \varphi = 50^\circ$			$\mu_o = 0; \varphi = 60^\circ$			$\mu_o = 0; \varphi = 70^\circ$			$\mu_o = 0; \varphi = 80^\circ$			$\mu_o = 0; \varphi = 90^\circ$	
	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	δ
0	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.04	0.5164	- 1.1	-44	0.4802	- 0.8	-55	0.4507	- 0.6	-65	0.4315	- 0.3	-73	0.4248	-75
0.08	0.8512	- 2.8	-44	0.7760	- 2.1	-58	0.7147	- 1.3	-71	0.6746	- 0.7	-81	0.6607	-85
0.12	0.9321	- 4.5	-41	0.8454	- 3.3	-58	0.7748	- 2.1	-73	0.7287	- 1.0	-84	0.7127	-88
0.16	0.9063	- 6.2	-44	0.8207	- 4.4	-59	0.7509	- 2.9	-74	0.7054	- 1.4	-85	0.6896	-89
0.20	0.8482	- 7.8	-44	0.7679	- 5.6	-59	0.7025	- 3.6	-74	0.6598	- 1.8	-86	0.6450	-90
0.24	0.7838	- 9.5	-44	0.7100	- 6.8	-60	0.6498	- 4.4	-75	0.6106	- 2.2	-86	0.5969	-90
0.28	0.7218	-11.2	-45	0.6545	- 8.0	-60	0.5997	- 5.2	-75	0.5639	- 2.5	-86	0.5514	-91
0.32	0.6648	-12.9	-46	0.6037	- 9.2	-61	0.5539	- 5.9	-75	0.5215	- 2.9	-87	0.5102	-91
0.36	0.6133	-14.5	-46	0.5580	-10.4	-61	0.5129	- 6.7	-76	0.4835	- 3.3	-87	0.4733	-91
0.40	0.5670	-16.2	-47	0.5170	-11.6	-62	0.4763	- 7.5	-76	0.4497	- 3.7	-87	0.4405	-91
0.44	0.5253	-17.9	-48	0.4803	-12.8	-63	0.4436	- 8.2	-77	0.4196	- 4.0	-87	0.4113	-91
0.48	0.4877	-19.6	-49	0.4472	-14.0	-64	0.4142	- 9.0	-77	0.3927	- 4.4	-87	0.3852	-91
0.52	0.4536	-21.2	-51	0.4174	-15.2	-65	0.3878	- 9.8	-78	0.3685	- 4.8	-88	0.3619	-91
0.56	0.4225	-22.9	-52	0.3902	-16.4	-66	0.3639	-10.6	-79	0.3468	- 5.2	-88	0.3408	-91
0.60	0.3940	-24.6	-54	0.3655	-17.7	-67	0.3422	-11.4	-79	0.3270	- 5.6	-88	0.3217	-91
0.64	0.3679	-26.2	-56	0.3428	-18.9	-69	0.3224	-12.3	-80	0.3090	- 6.0	-88	0.3044	-91
0.68	0.3437	-27.9	-58	0.3219	-20.1	-70	0.3042	-13.1	-81	0.2926	- 6.4	-88	0.2886	-91
0.72	0.3212	-29.5	-61	0.3026	-21.4	-72	0.2874	-13.9	-82	0.2775	- 6.9	-89	0.2741	-91
0.76	0.3003	-31.1	-64	0.2847	-22.6	-74	0.2719	-14.8	-83	0.2636	- 7.3	-89	0.2607	-91
0.80	0.2807	-32.7	-67	0.2680	-23.9	-76	0.2575	-15.6	-84	0.2507	- 7.7	-89	0.2484	-91
0.84	0.2624	-34.2	-71	0.2523	-25.1	-78	0.2441	-16.5	-85	0.2388	- 8.2	-89	0.2369	-91
0.88	0.2450	-35.7	-75	0.2376	-26.3	-81	0.2316	-17.3	-86	0.2277	- 8.6	-90	0.2263	-91
0.92	0.2287	-37.2	-80	0.2238	-27.6	-84	0.2199	-18.2	-88	0.2173	- 9.1	-90	0.2164	-91
0.96	0.2132	-38.6	-85	0.2108	-28.8	-87	0.2088	-19.1	-89	0.2076	- 9.5	-91	0.2071	-91
1.00	0.1984	-40.0	-91	0.1984	-30.0	-91	0.1984	-20.0	-91	0.1984	-10.0	-91	0.1984	-91
0.96	0.2132	-38.6	-85	0.2108	-28.8	-87	0.2088	-19.1	-89	0.2076	- 9.5	-91	0.2071	-91
0.92	0.2287	-37.2	-80	0.2238	-27.6	-84	0.2199	-18.2	-88	0.2173	- 9.1	-90	0.2164	-91
0.88	0.2450	-35.7	-75	0.2376	-26.3	-81	0.2316	-17.3	-86	0.2277	- 8.6	-90	0.2263	-91
0.84	0.2624	-34.2	-71	0.2523	-25.1	-78	0.2441	-16.5	-85	0.2388	- 8.2	-89	0.2369	-91
0.80	0.2807	-32.7	-67	0.2680	-23.9	-76	0.2575	-15.6	-84	0.2507	- 7.7	-89	0.2484	-91
0.76	0.3003	-31.1	-64	0.2847	-22.6	-74	0.2719	-14.8	-83	0.2636	- 7.3	-89	0.2607	-91
0.72	0.3212	-29.5	-61	0.3026	-21.4	-72	0.2874	-13.9	-82	0.2775	- 6.9	-89	0.2741	-91
0.68	0.3437	-27.9	-58	0.3219	-20.1	-70	0.3042	-13.1	-81	0.2926	- 6.4	-88	0.2886	-91
0.64	0.3679	-26.2	-56	0.3428	-18.9	-69	0.3224	-12.3	-80	0.3090	- 6.0	-88	0.3044	-91
0.60	0.3940	-24.6	-54	0.3655	-17.7	-67	0.3422	-11.4	-79	0.3270	- 5.6	-88	0.3217	-91
0.56	0.4225	-22.9	-52	0.3902	-16.4	-66	0.3639	-10.6	-79	0.3468	- 5.2	-88	0.3408	-91
0.52	0.4536	-21.2	-51	0.4174	-15.2	-65	0.3878	- 9.8	-78	0.3685	- 4.8	-88	0.3619	-91
0.48	0.4877	-19.6	-49	0.4472	-14.0	-64	0.4142	- 9.0	-77	0.3927	- 4.4	-87	0.3852	-91
0.44	0.5253	-17.9	-48	0.4803	-12.8	-63	0.4436	- 8.2	-77	0.4196	- 4.0	-87	0.4113	-91
0.40	0.5670	-16.2	-47	0.5170	-11.6	-62	0.4763	- 7.5	-76	0.4497	- 3.7	-87	0.4405	-91
0.36	0.6133	-14.5	-46	0.5580	-10.4	-61	0.5129	- 6.7	-76	0.4835	- 3.3	-87	0.4733	-91
0.32	0.6648	-12.9	-46	0.6037	- 9.2	-61	0.5539	- 5.9	-75	0.5215	- 2.9	-87	0.5102	-91
0.28	0.7218	-11.2	-45	0.6545	- 8.0	-60	0.5997	- 5.2	-75	0.5639	- 2.5	-86	0.5514	-91
0.24	0.7838	- 9.5	-44	0.7100	- 6.8	-60	0.6498	- 4.4	-75	0.6106	- 2.2	-86	0.5969	-90
0.20	0.8482	- 7.8	-44	0.7679	- 5.6	-59	0.7025	- 3.6	-74	0.6598	- 1.8	-86	0.6450	-90
0.16	0.9063	- 6.2	-44	0.8207	- 4.4	-59	0.7509	- 2.9	-74	0.7054	- 1.4	-85	0.6896	-89
0.12	0.9321	- 4.5	-41	0.8454	- 3.3	-58	0.7748	- 2.1	-73	0.7287	- 1.0	-84	0.7127	-88
0.08	0.8512	- 2.8	-44	0.7760	- 2.1	-58	0.7147	- 1.3	-71	0.6746	- 0.7	-81	0.6607	-85
0.04	0.5164	- 1.1	-44	0.4802	- 0.8	-55	0.4507	- 0.6	-65	0.4315	- 0.3	-73	0.4248	-75
0	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .

TABLE 5 (continued)

μ	$\mu_0 = 0.08;\ \varphi = 0^\circ$		$\mu_0 = 0.08;\ \varphi = 10^\circ$			$\mu_0 = 0.08;\ \varphi = 20^\circ$			$\mu_0 = 0.08;\ \varphi = 30^\circ$		
	I_1+I_r	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ
0	0.0897	- 8	0.0886	+ 3.7	-10	0.0854	+ 5.3	-14	0.0805	+ 5.4	-21
0.04	0.1359	- 8	0.1342	+ 2.2	- 9	0.1291	+ 3.2	-13	0.1214	+ 3.4	-21
0.08	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.12	0.1302	- 6	0.1285	- 1.9	- 8	0.1236	- 2.1	-12	0.1161	- 1.4	-20
0.16	0.1152	- 6	0.1137	- 4.3	- 8	0.1094	- 5.0	-12	0.1027	- 4.0	-19
0.20	0.1019	- 6	0.1006	- 7.1	- 7	0.0967	- 8.1	-12	0.0909	- 6.6	-19
0.24	0.0906	- 5	0.0894	-10.3	- 7	0.0861	-11.5	-12	0.0809	- 9.4	-19
0.28	0.0811	- 4	0.0801	-14.3	- 6	0.0771	-15.0	-12	0.0725	-12.2	-20
0.32	0.0731	- 3	0.0722	-19.3	- 6	0.0695	-18.8	-12	0.0654	-15.1	-20
0.36	0.0663	- 2	0.0654	-25.6	- 6	0.0630	-22.9	-12	0.0594	-18.1	-20
0.40	0.0603	- 1	0.0596	-33.2	- 6	0.0574	-27.2	-12	0.0542	-21.1	-21
0.44	0.0551	+ 1	0.0544	-41.5	- 6	0.0525	-31.7	-13	0.0496	-24.3	-21
0.48	0.0504	+ 3	0.0498	+40.6	+ 7	0.0481	-36.2	-14	0.0455	-27.4	-22
0.52	0.0463	+ 5	0.0458	+34.0	+ 8	0.0442	-40.5	-15	0.0419	-30.6	-24
0.56	0.0425	+ 7	0.0421	+28.8	+10	0.0407	-44.6	-16	0.0386	-33.7	-25
0.60	0.0391	+10	0.0387	+24.8	+12	0.0375	+41.6	+18	0.0357	-36.7	-27
0.64	0.0360	+13	0.0356	+21.7	+15	0.0346	+38.2	+21	0.0330	-39.7	-29
0.68	0.0331	+17	0.0328	+19.3	+19	0.0319	+35.1	+24	0.0304	-42.5	-32
0.72	0.0304	+21	0.0301	+17.3	+23	0.0293	+32.4	+28	0.0281	+44.9	+35
0.76	0.0279	+26	0.0276	+15.8	+28	0.0270	+30.0	+32	0.0259	+42.4	+39
0.80	0.0255	+32	0.0253	+14.4	+33	0.0247	+27.9	+37	0.0239	+40.0	+43
0.84	0.0232	+38	0.0231	+13.3	+40	0.0226	+26.1	+43	0.0219	+37.8	+48
0.88	0.0210	+46	0.0209	+12.4	+47	0.0206	+24.4	+50	0.0201	+35.8	+55
0.92	0.0190	+56	0.0189	+11.5	+57	0.0187	+22.9	+59	0.0183	+33.9	+63
0.96	0.0169	+69	0.0168	+10.8	+69	0.0167	+21.5	+71	0.0165	+32.1	+73
1.00	0.0145	+89	0.0145	+10.0	+89	0.0145	+20.0	+89	0.0145	+30.0	+89
0.96	0.0157	+82	0.0156	+10.3	+82	0.0156	+20.5	+83	0.0155	+30.6	+85
0.92	0.0172	+72	0.0172	+10.7	+72	0.0170	+21.3	+74	0.0168	+31.6	+77
0.88	0.0190	+62	0.0189	+11.2	+63	0.0187	+22.2	+66	0.0183	+32.8	+70
0.84	0.0209	+54	0.0208	+11.8	+55	0.0204	+23.3	+58	0.0199	+34.1	+63
0.80	0.0229	+47	0.0228	+12.5	+48	0.0223	+24.5	+52	0.0217	+35.6	+57
0.76	0.0251	+40	0.0249	+13.3	+41	0.0244	+25.8	+46	0.0235	+37.1	+52
0.72	0.0275	+34	0.0272	+14.2	+36	0.0266	+27.3	+40	0.0256	+38.8	+47
0.68	0.0300	+29	0.0297	+15.2	+31	0.0290	+29.0	+36	0.0278	+40.6	+43
0.64	0.0328	+24	0.0325	+16.5	+26	0.0316	+30.8	+31	0.0302	+42.6	+39
0.60	0.0358	+20	0.0355	+18.0	+22	0.0344	+32.9	+28	0.0328	+44.7	+36
0.56	0.0392	+17	0.0387	+19.8	+19	0.0375	+35.3	+25	0.0357	-43.1	-33
0.52	0.0429	+13	0.0424	+22.0	+16	0.0410	+37.9	+22	0.0389	-40.8	-31
0.48	0.0470	+10	0.0464	+24.8	+13	0.0449	+40.9	+20	0.0425	-38.3	-29
0.44	0.0516	+ 8	0.0510	+28.3	+11	0.0492	+44.1	+18	0.0465	-35.7	-27
0.40	0.0568	+ 5	0.0561	+32.8	+ 9	0.0541	-42.3	-16	0.0511	-33.1	-26
0.36	0.0628	+ 3	0.0620	+38.3	+ 8	0.0598	-38.6	-15	0.0564	-30.3	-24
0.32	0.0697	+ 2	0.0688	-44.9	- 7	0.0663	-34.6	-14	0.0625	-27.6	-23
0.28	0.0778	0	0.0768	-37.5	- 6	0.0740	-30.6	-13	0.0696	-24.8	-22
0.24	0.0874	- 1	0.0863	-30.1	- 6	0.0831	-26.6	-13	0.0781	-22.0	-22
0.20	0.0989	- 3	0.0976	-23.5	- 6	0.0939	-22.7	-12	0.0882	-19.2	-21
0.16	0.1125	- 4	0.1110	-18.0	- 7	0.1068	-19.0	-12	0.1003	-16.4	-21
0.12	0.1279	- 5	0.1263	-13.5	- 7	0.1214	-15.4	-12	0.1141	-13.7	-20
0.08	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.04	0.1351	- 7	0.1334	- 6.3	- 9	0.1284	- 8.3	-13	0.1207	- 8.1	-21
0	0.0897	- 8	0.0886	- 3.7	-10	0.0854	- 5.3	-14	0.0805	- 5.4	-21

TABLE 5 (continued)

μ	$\mu_0 = 0.08$; $\varphi = 40^\circ$			$\mu_0 = 0.08$; $\varphi = 50^\circ$			$\mu_0 = 0.08$; $\varphi = 60^\circ$			$\mu_0 = 0.08$; $\varphi = 70^\circ$		
	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ
0	0.0745	+ 5.2	-31	0.0681	+ 4.8	-43	0.0621	+ 4.5	-57	0.0572	+ 4.3	-71
0.04	0.1120	+ 3.4	-31	0.1019	+ 3.5	-44	0.0924	+ 3.5	-58	0.0847	+ 3.7	-73
0.08	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.12	0.1068	- 0.5	-30	0.0969	+ 0.4	-43	0.0876	+ 1.4	-58	0.0799	+ 2.3	-74
0.16	0.0945	- 2.5	-30	0.0857	- 1.1	-43	0.0775	+ 0.2	-58	0.0707	+ 1.5	-74
0.20	0.0836	- 4.7	-30	0.0759	- 2.7	-43	0.0686	- 0.9	-58	0.0626	+ 0.8	-74
0.24	0.0745	- 6.8	-30	0.0677	- 4.4	-43	0.0612	- 2.1	-58	0.0559	0	-74
0.28	0.0668	- 9.0	-30	0.0608	- 6.0	-44	0.0551	- 3.3	-59	0.0503	- 0.8	-74
0.32	0.0604	-11.2	-31	0.0550	- 7.7	-44	0.0499	- 4.5	-59	0.0456	- 1.5	-74
0.36	0.0549	-13.5	-31	0.0501	- 9.4	-44	0.0455	- 5.7	-59	0.0417	- 2.4	-74
0.40	0.0501	-15.8	-32	0.0458	-11.1	-45	0.0417	- 7.0	-59	0.0383	- 3.2	-74
0.44	0.0460	-18.1	-32	0.0421	-12.9	-45	0.0384	- 8.2	-60	0.0353	- 4.0	-74
0.48	0.0423	-20.5	-33	0.0388	-14.6	-46	0.0355	- 9.5	-60	0.0327	- 4.9	-74
0.52	0.0390	-22.9	-34	0.0359	-16.5	-47	0.0329	-10.8	-61	0.0305	- 5.8	-74
0.56	0.0361	-25.3	-36	0.0333	-18.3	-48	0.0306	-12.2	-62	0.0284	- 6.7	-75
0.60	0.0334	-27.7	-37	0.0309	-20.1	-49	0.0286	-13.6	-62	0.0266	- 7.6	-75
0.64	0.0309	-30.1	-39	0.0288	-22.0	-51	0.0267	-15.0	-64	0.0249	- 8.5	-76
0.68	0.0287	-32.4	-41	0.0268	-23.9	-53	0.0250	-16.4	-65	0.0234	- 9.5	-76
0.72	0.0266	-34.8	-44	0.0250	-25.8	-55	0.0234	-17.9	-66	0.0221	-10.5	-77
0.76	0.0247	-37.0	-47	0.0233	-27.7	-57	0.0219	-19.4	-68	0.0208	-11.6	-78
0.80	0.0228	-39.3	-51	0.0217	-29.7	-60	0.0206	-20.9	-70	0.0196	-12.7	-79
0.84	0.0211	-41.4	-55	0.0202	-31.6	-64	0.0193	-22.4	-72	0.0185	-13.8	-80
0.88	0.0195	-43.5	-61	0.0188	-33.5	-68	0.0181	-24.1	-75	0.0175	-15.0	-81
0.92	0.0179	+44.4	+67	0.0174	-35.5	-73	0.0169	-25.7	-78	0.0165	-16.3	-83
0.96	0.0163	+42.4	+76	0.0161	-37.5	-79	0.0158	-27.5	-82	0.0156	-17.8	-85
1.00	0.0145	+40.0	+89	0.0145	-40.0	-89	0.0145	-30.0	-89	0.0145	-20.0	-89
0.96	0.0154	+40.5	+86	0.0153	-39.6	-88	0.0152	-29.9	-89	0.0151	-20.4	-90
0.92	0.0166	+41.7	+80	0.0163	-38.6	-84	0.0161	-29.2	-87	0.0159	-19.9	-89
0.88	0.0179	+42.9	+75	0.0174	-37.5	-80	0.0170	-28.3	-85	0.0168	-19.4	-88
0.84	0.0193	+44.3	+69	0.0187	-36.2	-76	0.0181	-27.3	-83	0.0177	-18.8	-88
0.80	0.0209	-44.3	-65	0.0200	-35.0	-73	0.0193	-26.3	-80	0.0187	-18.2	-87
0.76	0.0225	-42.7	-60	0.0215	-33.6	-69	0.0206	-25.3	-78	0.0198	-17.6	-86
0.72	0.0244	-41.1	-56	0.0231	-32.3	-66	0.0219	-24.3	-76	0.0211	-16.9	-85
0.68	0.0263	-39.4	-53	0.0248	-30.9	-64	0.0234	-23.2	-75	0.0224	-16.2	-84
0.64	0.0285	-37.7	-50	0.0267	-29.4	-61	0.0251	-22.2	-73	0.0238	-15.6	-83
0.60	0.0309	-35.9	-47	0.0288	-28.0	-59	0.0269	-21.1	-71	0.0255	-14.9	-82
0.56	0.0335	-34.0	-44	0.0311	-26.5	-57	0.0290	-20.0	-70	0.0273	-14.2	-81
0.52	0.0364	-32.1	-42	0.0337	-25.0	-55	0.0312	-18.9	-69	0.0293	-13.5	-81
0.48	0.0396	-30.1	-40	0.0366	-23.5	-53	0.0338	-17.8	-67	0.0315	-12.8	-80
0.44	0.0433	-28.1	-39	0.0398	-22.0	-52	0.0366	-16.8	-66	0.0341	-12.1	-79
0.40	0.0474	-26.1	-37	0.0435	-20.5	-51	0.0399	-15.7	-65	0.0371	-11.5	-79
0.36	0.0522	-24.0	-36	0.0478	-18.9	-49	0.0437	-14.6	-64	0.0405	-10.8	-78
0.32	0.0578	-22.0	-35	0.0528	-17.4	-48	0.0482	-13.5	-63	0.0445	-10.1	-78
0.28	0.0643	-19.9	-34	0.0587	-15.8	-48	0.0534	-12.4	-63	0.0492	- 9.4	-77
0.24	0.0720	-17.8	-33	0.0656	-14.3	-47	0.0596	-11.3	-62	0.0548	- 8.7	-77
0.20	0.0813	-15.7	-32	0.0740	-12.7	-46	0.0671	-10.2	-61	0.0616	- 8.0	-76
0.16	0.0924	-13.7	-32	0.0840	-11.2	-45	0.0761	- 9.1	-61	0.0698	- 7.3	-76
0.12	0.1050	-11.6	-31	0.0954	- 9.6	-45	0.0864	- 8.0	-60	0.0791	- 6.5	-75
0.08	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.04	0.1114	- 7.3	-31	0.1014	- 6.4	-44	0.0920	- 5.7	-59	0.0844	- 5.0	-73
0	0.0745	- 5.2	-31	0.0681	- 4.8	-43	0.0621	- 4.5	-57	0.0572	- 4.3	-71

TABLE 5 (continued)

μ	$\mu_o = 0.08;\ \varphi = 80^\circ$			$\mu_o = 0.08;\ \varphi = 90^\circ$			$\mu_o = 0.24;\ \varphi = 0^\circ$		$\mu_o = 0.24;\ \varphi = 10^\circ$		
	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	δ	I_1+I_r	χ°	δ
0	0.0540	+ 4.2	-81	0.0529	+ 4.1	-85	0.2518	- 3	0.2485	+21.7	- 6
0.04	0.0796	+ 3.9	-84	0.0778	+ 4.2	-88	0.2922	- 4	0.2884	+15.2	- 7
0.08	. .	. .	. .	. .	. .	. .	0.2718	- 5	0.2683	+11.9	- 7
0.12	0.0749	+ 3.2	-85	0.0730	+ 4.2	-90	0.2363	- 5	0.2332	+ 8.9	- 7
0.16	0.0662	+ 2.8	-85	0.0645	+ 4.2	-90	0.2049	- 6	0.2022	+ 6.1	- 7
0.20	0.0586	+ 2.5	-85	0.0571	+ 4.2	-90	0.1794	- 6	0.1771	+ 3.6	- 7
0.24	0.0523	+ 2.1	-85	0.0509	+ 4.2	-91	. .	. .	. .	. .	. .
0.28	0.0471	+ 1.7	-85	0.0458	+ 4.1	-91	0.1422	- 6	0.1404	- 1.5	- 7
0.32	0.0428	+ 1.3	-85	0.0416	+ 4.1	-91	0.1282	- 5	0.1266	- 4.3	- 7
0.36	0.0391	+ 0.9	-85	0.0380	+ 4.0	-91	0.1164	- 5	0.1150	- 7.6	- 6
0.40	0.0359	+ 0.4	-85	0.0349	+ 4.0	-91	0.1063	- 4	0.1050	-11.6	- 6
0.44	0.0332	0	-85	0.0322	+ 3.9	-91	0.0974	- 3	0.0963	-16.7	- 5
0.48	0.0308	- 0.5	-85	0.0299	+ 3.8	-90	0.0896	- 2	0.0886	-23.4	- 5
0.52	0.0287	- 0.9	-85	0.0279	+ 3.8	-90	0.0826	- 1	0.0817	-31.9	- 5
0.56	0.0269	- 1.4	-85	0.0261	+ 3.7	-90	0.0763	+ 1	0.0755	-41.4	- 5
0.60	0.0252	- 1.9	-85	0.0245	+ 3.6	-90	0.0705	+ 3	0.0698	+39.5	+ 6
0.64	0.0237	- 2.5	-85	0.0231	+ 3.4	-90	0.0652	+ 5	0.0646	+32.2	+ 8
0.68	0.0223	- 3.0	-85	0.0218	+ 3.3	-90	0.0603	+ 8	0.0597	+26.7	+10
0.72	0.0211	- 3.6	-85	0.0206	+ 3.2	-90	0.0557	+11	0.0552	+22.7	+13
0.76	0.0200	- 4.2	-86	0.0195	+ 3.0	-90	0.0513	+15	0.0508	+19.6	+16
0.80	0.0189	- 4.9	-86	0.0185	+ 2.8	-90	0.0471	+19	0.0467	+17.3	+21
0.84	0.0179	- 5.6	-86	0.0176	+ 2.5	-90	0.0431	+25	0.0428	+15.4	+26
0.88	0.0170	- 6.3	-86	0.0167	+ 2.2	-89	0.0391	+32	0.0389	+13.9	+33
0.92	0.0162	- 7.2	-87	0.0160	+ 1.9	-89	0.0352	+41	0.0350	+12.6	+42
0.96	0.0154	- 8.2	-87	0.0152	+ 1.3	-89	0.0311	+53	0.0310	+11.4	+54
1.00	0.0145	-10.0	-89	0.0145	0	-89	0.0254	+81	0.0254	+10.0	+81
0.96	0.0152	-10.8	-90	0.0152	+ 1.3	-89	0.0252	+89	0.0251	+ 9.8	+90
0.92	0.0159	-10.9	-90	0.0160	+ 1.9	-89	0.0269	+84	0.0268	+10.0	+85
0.88	0.0167	-10.8	-90	0.0167	+ 2.2	-89	0.0291	+77	0.0290	+10.2	+78
0.84	0.0175	-10.6	-90	0.0176	+ 2.5	-90	0.0316	+70	0.0315	+10.6	+71
0.80	0.0185	-10.4	-90	0.0185	+ 2.8	-90	0.0345	+63	0.0343	+11.0	+64
0.76	0.0195	-10.2	-90	0.0195	+ 3.0	-90	0.0377	+56	0.0375	+11.5	+57
0.72	0.0206	- 9.9	-90	0.0206	+ 3.2	-90	0.0413	+50	0.0410	+12.0	+51
0.68	0.0218	- 9.7	-90	0.0218	+ 3.3	-90	0.0452	+44	0.0448	+12.6	+46
0.64	0.0231	- 9.4	-89	0.0231	+ 3.4	-90	0.0495	+39	0.0491	+13.3	+40
0.60	0.0246	- 9.1	-89	0.0245	+ 3.6	-90	0.0543	+34	0.0538	+14.1	+35
0.56	0.0263	- 8.8	-89	0.0261	+ 3.7	-90	0.0596	+29	0.0591	+15.0	+31
0.52	0.0281	- 8.5	-89	0.0279	+ 3.8	-90	0.0656	+25	0.0649	+16.0	+27
0.48	0.0302	- 8.2	-89	0.0299	+ 3.8	-90	0.0724	+21	0.0716	+17.3	+23
0.44	0.0326	- 7.9	-88	0.0322	+ 3.9	-91	0.0800	+18	0.0792	+18.8	+20
0.40	0.0353	- 7.6	-88	0.0349	+ 4.0	-91	0.0888	+15	0.0878	+20.6	+17
0.36	0.0385	- 7.3	-88	0.0380	+ 4.0	-91	0.0991	+12	0.0979	+22.8	+15
0.32	0.0422	- 7.0	-88	0.0416	+ 4.1	-91	0.1111	+ 9	0.1097	+25.5	+12
0.28	0.0465	- 6.7	-87	0.0458	+ 4.1	-91	0.1254	+ 7	0.1238	+28.9	+10
0.24	0.0518	- 6.3	-87	0.0509	+ 4.2	-91	. .	. .	. .	. .	. .
0.20	0.0581	- 6.0	-87	0.0571	+ 4.2	-90	0.1639	+ 3	0.1619	+38.4	+ 8
0.16	0.0657	- 5.7	-87	0.0645	+ 4.2	-90	0.1906	+ 2	0.1882	+44.7	+ 7
0.12	0.0745	- 5.3	-86	0.0730	+ 4.2	-90	0.2238	0	0.2210	-38.4	- 6
0.08	. .	. .	. .	. .	. .	. .	0.2622	- 1	0.2589	-31.2	- 6
0.04	0.0795	- 4.6	-84	0.0778	+ 4.2	-88	0.2870	- 3	0.2833	-24.7	- 6
0	0.0540	- 4.2	-81	0.0529	+ 4.1	-85	0.2518	- 3	0.2485	-21.7	- 6

TABLE 5 (continued)

μ	$\mu_0 = 0.24$; $\varphi = 20^\circ$			$\mu_0 = 0.24$; $\varphi = 30^\circ$			$\mu_0 = 0.24$; $\varphi = 40^\circ$			$\mu_0 = 0.24$; $\varphi = 50^\circ$		
	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ
0	0.2391	+22.2	-12	0.2247	+19.8	-20	0.2070	+17.5	-31	0.1881	+15.7	-44
0.04	0.2775	+17.6	-12	0.2609	+16.5	-20	0.2404	+15.1	-30	0.2186	+14.0	-44
0.08	0.2582	+14.5	-12	0.2426	+14.0	-19	0.2235	+13.1	-30	0.2031	+12.5	-43
0.12	0.2244	+11.4	-12	0.2109	+11.4	-19	0.1942	+11.1	-29	0.1764	+10.9	-42
0.16	0.1946	+ 8.3	-11	0.1829	+ 8.8	-19	0.1685	+ 9.0	-29	0.1530	+ 9.3	-42
0.20	0.1705	+ 5.3	-11	0.1603	+ 6.1	-18	0.1477	+ 6.9	-28	0.1342	+ 7.7	-41
0.24	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.28	0.1352	- 1.0	-11	0.1273	+ 0.6	-18	0.1174	+ 2.5	-28	0.1068	+ 4.3	-40
0.32	0.1220	- 4.3	-11	0.1149	- 2.2	-18	0.1061	+ 0.2	-28	0.0966	+ 2.6	-40
0.36	0.1109	- 7.8	-11	0.1045	- 5.2	-18	0.0966	- 2.2	-28	0.0881	+ 0.8	-40
0.40	0.1013	-11.6	-11	0.0956	- 8.3	-18	0.0884	- 4.6	-28	0.0807	- 1.1	-40
0.44	0.0929	-15.6	-11	0.0878	-11.6	-18	0.0814	- 7.2	-28	0.0744	- 3.0	-40
0.48	0.0856	-20.4	-11	0.0809	-15.0	-18	0.0751	- 9.8	-28	0.0688	- 5.0	-40
0.52	0.0790	-25.3	-11	0.0748	-18.5	-18	0.0696	-12.4	-28	0.0639	- 7.1	-40
0.56	0.0730	-30.5	-11	0.0693	-22.2	-19	0.0646	-15.2	-29	0.0595	- 9.2	-40
0.60	0.0676	-35.8	-12	0.0643	-26.0	-20	0.0601	-18.1	-29	0.0555	-11.4	-41
0.64	0.0626	-40.9	-14	0.0597	-29.8	-21	0.0559	-21.0	-30	0.0518	-13.7	-42
0.68	0.0580	+44.2	+15	0.0554	-33.6	-23	0.0521	-24.1	-32	0.0484	-16.0	-42
0.72	0.0537	+39.9	+18	0.0514	-37.3	-25	0.0485	-27.1	-33	0.0453	-18.4	-44
0.76	0.0496	+36.0	+21	0.0476	-40.9	-27	0.0451	-30.2	-36	0.0423	-21.0	-45
0.80	0.0457	+32.6	+25	0.0440	-44.4	-31	0.0419	-33.3	-38	0.0396	-23.6	-47
0.84	0.0419	+29.7	+29	0.0405	+42.4	+35	0.0388	-36.3	-42	0.0369	-26.2	-50
0.88	0.0382	+27.1	+36	0.0372	+39.4	+40	0.0358	-39.4	-46	0.0343	-29.0	-54
0.92	0.0346	+24.8	+44	0.0338	+36.5	+47	0.0328	-42.4	-52	0.0317	-31.9	-58
0.96	0.0307	+22.7	+55	0.0303	+33.7	+58	0.0297	+44.5	+61	0.0291	-35.1	-65
1.00	0.0254	+20.0	+81	0.0254	+29.9	+81	0.0254	+39.9	+81	0.0254	-40.1	-81
0.96	0.0251	+19.5	+90	0.0251	+29.1	+90	0.0252	+38.7	+90	0.0252	-41.8	-90
0.92	0.0267	+19.8	+86	0.0266	+29.5	+87	0.0265	+39.1	+89	0.0264	-41.6	-90
0.88	0.0288	+20.3	+80	0.0285	+30.2	+82	0.0281	+39.7	+86	0.0278	-41.2	-88
0.84	0.0312	+21.0	+73	0.0306	+30.9	+77	0.0301	+40.4	+82	0.0295	-40.6	-86
0.80	0.0338	+21.7	+67	0.0331	+31.8	+72	0.0325	+41.3	+78	0.0315	-39.9	-83
0.76	0.0368	+22.5	+61	0.0359	+32.8	+67	0.0347	+42.2	+74	0.0336	-39.1	-81
0.72	0.0401	+23.4	+55	0.0389	+33.8	+62	0.0375	+43.3	+69	0.0360	-38.2	-78
0.68	0.0438	+24.4	+50	0.0423	+35.0	+57	0.0405	+44.4	+66	0.0387	-37.3	-75
0.64	0.0479	+25.5	+45	0.0460	+36.3	+53	0.0439	-44.4	-62	0.0417	-36.3	-72
0.60	0.0524	+26.8	+41	0.0502	+37.7	+49	0.0476	-43.1	-59	0.0450	-35.2	-69
0.56	0.0574	+28.2	+37	0.0549	+39.1	+45	0.0518	-41.8	-55	0.0488	-34.2	-67
0.52	0.0630	+29.7	+33	0.0601	+40.7	+41	0.0566	-40.4	-52	0.0530	-33.0	-65
0.48	0.0694	+31.5	+29	0.0660	+42.5	+38	0.0619	-38.9	-50	0.0578	-31.9	-62
0.44	0.0766	+33.5	+26	0.0727	+44.3	+36	0.0681	-37.4	-47	0.0632	-30.7	-60
0.40	0.0849	+35.7	+24	0.0805	-43.7	-33	0.0751	-35.8	-45	0.0695	-29.4	-58
0.36	0.0945	+38.1	+21	0.0895	-41.6	-31	0.0833	-34.1	-43	0.0769	-28.2	-56
0.32	0.1059	+40.8	+19	0.1001	-39.5	-29	0.0930	-32.4	-41	0.0856	-26.9	-55
0.28	0.1194	+43.8	+18	0.1127	-37.1	-27	0.1045	-30.6	-39	0.0960	-25.5	-53
0.24	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.20	0.1559	-39.6	-15	0.1469	-32.3	-24	0.1358	-26.9	-36	0.1242	-22.8	-50
0.16	0.1812	-36.0	-14	0.1706	-29.7	-23	0.1576	-25.0	-35	0.1439	-21.4	-49
0.12	0.2127	-32.2	-13	0.2001	-27.1	-22	0.1847	-23.1	-34	0.1684	-20.0	-48
0.08	0.2492	-28.4	-13	0.2343	-24.5	-22	0.2161	-21.1	-33	0.1969	-18.5	-46
0.04	0.2727	-24.5	-12	0.2564	-21.7	-21	0.2364	-19.1	-32	0.2152	-17.0	-45
0	0.2391	-22.2	-12	0.2247	-19.8	-20	0.2070	-17.5	-31	0.1881	-15.7	-44

TABLE 5 (continued)

μ	$\mu_o = 0.24$; $\varphi = 60°$			$\mu_o = 0.24$; $\varphi = 70°$			$\mu_o = 0.24$; $\varphi = 80°$			$\mu_o = 0.24$; $\varphi = 90°$		
	I_1+I_r	$\chi°$	δ	I_1+I_r	$\chi°$	δ	I_1+I_r	$\chi°$	δ	I_1+I_r	$\chi°$	δ
0	0.1704	+14.5	-59	0.1560	+13.7	-74	0.1465	+13.2	-86	0.1433	+13.0	-90
0.04	0.1980	+13.2	-59	0.1811	+12.8	-74	0.1699	+12.7	-85	0.1657	+12.9	-90
0.08	0.1837	+12.1	-58	0.1678	+12.1	-73	0.1570	+12.4	-85	0.1527	+12.9	-90
0.12	0.1595	+11.0	-58	0.1454	+11.4	-73	0.1359	+12.0	-85	0.1316	+12.9	-90
0.16	0.1383	+ 9.9	-57	0.1260	+10.6	-72	0.1175	+11.6	-84	0.1137	+12.5	-90
0.20	0.1212	+ 8.7	-56	0.1104	+ 9.8	-72	0.1028	+11.2	-84	0.0993	+12.8	-90
0.24	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.28	0.0966	+ 6.2	-55	0.0879	+ 8.2	-70	0.0817	+10.3	-83	0.0786	+12.6	-90
0.32	0.0875	+ 4.9	-55	0.0796	+ 7.3	-70	0.0740	+ 9.8	-83	0.0710	+12.4	-90
0.36	0.0798	+ 3.6	-54	0.0727	+ 6.4	-69	0.0675	+ 9.3	-82	0.0647	+12.3	-90
0.40	0.0733	+ 2.3	-54	0.0668	+ 5.5	-69	0.0620	+ 8.8	-82	0.0593	+12.1	-89
0.44	0.0676	+ 0.8	-54	0.0617	+ 4.5	-68	0.0573	+ 8.2	-81	0.0548	+11.9	-89
0.48	0.0627	- 0.6	-54	0.0573	+ 3.5	-68	0.0533	+ 7.6	-81	0.0509	+11.7	-89
0.52	0.0583	- 2.1	-54	0.0534	+ 2.5	-68	0.0497	+ 7.0	-80	0.0474	+11.5	-88
0.56	0.0544	- 3.7	-54	0.0500	+ 1.4	-67	0.0465	+ 6.3	-80	0.0444	+11.2	-88
0.60	0.0509	- 5.4	-54	0.0469	+ 0.2	-67	0.0437	+ 5.6	-79	0.0417	+10.9	-87
0.64	0.0477	- 7.1	-54	0.0441	- 1.0	-67	0.0412	+ 4.8	-79	0.0393	+10.5	-87
0.68	0.0448	- 8.9	-55	0.0415	- 2.3	-67	0.0389	+ 4.0	-78	0.0371	+10.1	-86
0.72	0.0421	-10.8	-55	0.0392	- 3.7	-67	0.0368	+ 3.1	-78	0.0352	+ 9.7	-86
0.76	0.0396	-12.7	-56	0.0370	- 5.1	-67	0.0349	+ 2.1	-77	0.0334	+ 9.1	-85
0.80	0.0372	-14.8	-57	0.0350	- 6.7	-68	0.0331	+ 1.0	-77	0.0318	+ 8.5	-85
0.84	0.0349	-17.0	-59	0.0331	- 8.4	-68	0.0315	- 0.2	-77	0.0303	+ 7.8	-84
0.88	0.0327	-19.4	-61	0.0312	-10.3	-69	0.0299	- 1.6	-77	0.0289	+ 6.9	-83
0.92	0.0306	-22.0	-64	0.0295	-12.5	-71	0.0285	- 3.3	-77	0.0276	+ 5.7	-82
0.96	0.0284	-24.9	-69	0.0277	-15.1	-73	0.0270	- 5.4	-78	0.0265	+ 4.1	-81
1.00	0.0254	-30.0	-81	0.0254	-20.0	-81	0.0254	-10.0	-81	0.0254	0	-81
0.96	0.0254	-32.3	-89	0.0256	-23.0	-87	0.0260	-13.6	-85	0.0265	+ 4.1	-81
0.92	0.0264	-32.5	-90	0.0266	-23.5	-89	0.0270	-14.6	-86	0.0276	+ 5.7	-82
0.88	0.0277	-32.3	-90	0.0278	-23.7	-90	0.0282	-15.3	-86	0.0289	+ 6.9	-83
0.84	0.0292	-32.0	-89	0.0292	-23.7	-90	0.0295	-15.7	-88	0.0303	+ 7.8	-84
0.80	0.0309	-31.5	-88	0.0307	-23.6	-90	0.0310	-16.0	-89	0.0318	+ 8.5	-85
0.76	0.0328	-31.0	-86	0.0324	-23.4	-90	0.0326	-16.2	-90	0.0334	+ 9.1	-85
0.72	0.0349	-30.4	-85	0.0343	-23.2	-89	0.0343	-16.3	-90	0.0352	+ 9.7	-86
0.68	0.0373	-29.7	-83	0.0364	-22.8	-89	0.0363	-16.4	-90	0.0371	+10.1	-86
0.64	0.0399	-29.0	-82	0.0387	-22.5	-88	0.0385	-16.4	-90	0.0393	+10.5	-87
0.60	0.0428	-28.3	-80	0.0413	-22.1	-87	0.0409	-16.3	-90	0.0417	+10.9	-87
0.56	0.0461	-27.5	-78	0.0443	-21.7	-87	0.0437	-16.3	-90	0.0444	+11.2	-88
0.52	0.0498	-26.7	-76	0.0476	-21.2	-86	0.0467	-16.2	-90	0.0474	+11.5	-88
0.48	0.0541	-25.9	-75	0.0514	-20.7	-85	0.0503	-16.1	-90	0.0509	+11.7	-89
0.44	0.0589	-25.1	-73	0.0558	-20.2	-84	0.0543	-15.9	-90	0.0548	+11.9	-89
0.40	0.0645	-24.2	-72	0.0608	-19.7	-83	0.0590	-15.7	-90	0.0593	+12.1	-89
0.36	0.0711	-23.3	-70	0.0667	-19.2	-82	0.0645	-15.6	-90	0.0647	+12.3	-90
0.32	0.0789	-22.4	-69	0.0738	-18.6	-82	0.0710	-15.3	-89	0.0710	+12.4	-90
0.28	0.0882	-21.4	-68	0.0822	-18.0	-81	0.0788	-15.1	-89	0.0786	+12.6	-90
0.24	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.20	0.1135	-19.5	-65	0.1051	-16.8	-79	0.1001	-14.6	-88	0.0993	+12.8	-90
0.16	0.1312	-18.5	-64	0.1211	-16.2	-78	0.1150	-14.3	-88	0.1137	+12.8	-90
0.12	0.1533	-17.5	-63	0.1412	-15.6	-77	0.1337	-14.0	-87	0.1318	+12.9	-90
0.08	0.1789	-16.4	-62	0.1645	-14.9	-76	0.1554	-13.7	-87	0.1527	+12.9	-90
0.04	0.1954	-15.4	-61	0.1793	-14.2	-75	0.1690	-13.4	-86	0.1657	+12.9	-90
0	0.1704	-14.5	-59	0.1560	-13.7	-74	0.1465	-13.2	-86	0.1433	+13.0	-90

TABLE 5 (continued)

μ	$\mu_0 = 0.52;\ \varphi = 0^\circ$		$\mu_0 = 0.52;\ \varphi = 10^\circ$			$\mu_0 = 0.52;\ \varphi = 20^\circ$			$\mu_0 = 0.52;\ \varphi = 30^\circ$		
	I_1+I_r	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ
0	0.3036	+10	0.3001	-21.5	+13	0.2901	-35.4	+18	0.2747	-44.2	+27
0.04	0.3308	+ 7	0.3270	-25.7	+10	0.3162	-39.3	+16	0.2995	+42.8	-25
0.08	0.3009	+ 5	0.2975	-29.2	+ 8	0.2876	-42.2	+15	0.2724	+40.6	-23
0.12	0.2608	+ 4	0.2578	-33.5	+ 7	0.2492	+44.7	-13	0.2360	+38.3	-22
0.16	0.2271	+ 2	0.2245	-38.8	+ 6	0.2170	+41.3	-12	0.2055	+35.8	-20
0.20	0.2003	+ 1	0.1981	+44.8	- 5	0.1915	+37.6	-11	0.1813	+33.2	-19
0.24	0.1790	0	0.1770	+37.8	- 5	0.1711	+33.7	-11	0.1621	+30.5	-18
0.28	0.1617	- 1	0.1599	+30.7	- 5	0.1546	+29.7	-10	0.1465	+27.6	-17
0.32	0.1474	- 2	0.1457	+24.2	- 5	0.1410	+25.7	-10	0.1336	+24.6	-16
0.36	0.1353	- 3	0.1338	+18.6	- 5	0.1295	+21.6	- 9	0.1228	+21.5	-16
0.40	0.1249	- 3	0.1236	+13.9	- 5	0.1197	+17.5	- 9	0.1136	+18.3	-15
0.44	0.1159	- 4	0.1147	+ 9.8	- 5	0.1111	+13.5	- 9	0.1056	+14.9	-14
0.48	0.1080	- 4	0.1068	+ 6.1	- 5	0.1036	+ 9.3	- 8	0.0985	+11.4	-14
0.52	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.56	0.0944	- 4	0.0934	- 1.3	- 5	0.0907	+ 0.6	- 8	0.0865	+ 3.8	-13
0.60	0.0884	- 3	0.0876	- 5.9	- 4	0.0851	- 4.4	- 8	0.0813	- 0.4	-13
0.64	0.0829	- 2	0.0822	-12.0	- 4	0.0799	-10.1	- 7	0.0765	- 5.0	-13
0.68	0.0778	- 1	0.0771	-21.1	- 4	0.0751	-16.7	- 7	0.0719	-10.0	-13
0.72	0.0728	0	0.0722	-34.2	- 3	0.0705	-24.3	- 7	0.0677	-15.6	-13
0.76	0.0681	+ 2	0.0676	+41.5	+ 4	0.0661	-32.5	- 8	0.0636	-21.5	-13
0.80	0.0636	+ 4	0.0631	+30.5	+ 6	0.0618	-40.8	- 9	0.0596	-27.8	-14
0.84	0.0591	+ 7	0.0587	+23.4	+ 8	0.0575	+41.8	+11	0.0557	-34.2	-16
0.88	0.0545	+11	0.0542	+18.8	+12	0.0533	+35.5	+15	0.0518	-40.5	-19
0.92	0.0497	+17	0.0495	+15.5	+18	0.0488	+30.1	+20	0.0477	+43.5	+23
0.96	0.0445	+26	0.0443	+12.9	+27	0.0439	+25.6	+28	0.0432	+37.8	+30
1.00	0.0353	+53	0.0353	+ 9.9	+53	0.0353	+19.9	+53	0.0353	+29.8	+53
0.96	0.0311	+80	0.0312	+ 8.8	+80	0.0313	+17.6	+79	0.0316	+26.4	+77
0.92	0.0311	+87	0.0312	+ 8.6	+87	0.0313	+17.3	+86	0.0316	+25.8	+85
0.88	0.0320	+90	0.0320	+ 8.6	+90	0.0321	+17.2	+89	0.0323	+25.6	+89
0.84	0.0335	+89	0.0335	+ 8.7	+89	0.0335	+17.2	+90	0.0336	+25.6	+90
0.80	0.0354	+87	0.0354	+ 8.7	+87	0.0353	+17.4	+88	0.0352	+25.7	+89
0.76	0.0378	+84	0.0377	+ 8.9	+84	0.0375	+17.6	+86	0.0373	+26.0	+88
0.72	0.0406	+79	0.0405	+ 9.0	+80	0.0402	+17.8	+82	0.0398	+26.3	+85
0.68	0.0439	+75	0.0437	+ 9.2	+76	0.0433	+18.2	+78	0.0426	+26.7	+82
0.64	0.0477	+70	0.0475	+ 9.5	+71	0.0468	+18.6	+74	0.0460	+27.1	+78
0.60	0.0520	+65	0.0517	+ 9.7	+66	0.0509	+19.0	+69	0.0498	+27.6	+74
0.56	0.0570	+59	0.0567	+10.0	+61	0.0557	+19.5	+65	0.0542	+28.2	+71
0.52	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.48	0.0693	+50	0.0687	+10.7	+51	0.0672	+20.7	+56	0.0650	+29.6	+63
0.44	0.0769	+45	0.0762	+11.1	+47	0.0744	+21.4	+52	0.0718	+30.4	+59
0.40	0.0856	+41	0.0850	+11.6	+43	0.0829	+22.1	+47	0.0797	+31.2	+55
0.36	0.0962	+37	0.0953	+12.1	+38	0.0928	+23.0	+44	0.0890	+32.1	+51
0.32	0.1087	+33	0.1076	+12.7	+35	0.1046	+23.9	+40	0.1001	+33.2	+48
0.28	0.1237	+29	0.1225	+13.4	+31	0.1189	+25.0	+36	0.1136	+34.3	+45
0.24	0.1422	+26	0.1407	+14.1	+28	0.1365	+26.1	+33	0.1302	+35.5	+42
0.20	0.1653	+22	0.1635	+15.0	+24	0.1585	+27.4	+30	0.1509	+36.8	+39
0.16	0.1946	+19	0.1926	+16.1	+21	0.1865	+28.9	+27	0.1774	+38.2	+36
0.12	0.2323	+16	0.2298	+17.4	+19	0.2224	+30.5	+25	0.2113	+39.8	+33
0.08	0.2786	+14	0.2755	+18.9	+16	0.2666	+32.4	+22	0.2530	+41.4	+31
0.04	0.3183	+11	0.3147	+20.7	+14	0.3044	+34.4	+20	0.2887	+43.2	+29
0	0.3036	+10	0.3001	+21.5	+13	0.2901	+35.4	+18	0.2747	+44.2	+27

TABLE 5 (continued)

μ	$\mu_0 = 0.52; \varphi = 40^\circ$			$\mu_0 = 0.52; \varphi = 50^\circ$			$\mu_0 = 0.52; \varphi = 60^\circ$			$\mu_0 = 0.52; \varphi = 70^\circ$		
	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ
0	0.2559	+40.0	-38	0.2359	+36.0	-50	0.2170	+33.2	-64	0.2017	+31.4	-77
0.04	0.2791	+37.7	-36	0.2572	+34.3	-48	0.2364	+32.0	-62	0.2193	+30.5	-75
0.08	0.2536	+36.0	-34	0.2334	+32.9	-46	0.2141	+31.0	-60	0.1979	+29.9	-74
0.12	0.2196	+34.2	-32	0.2019	+31.6	-44	0.1849	+30.0	-58	0.1705	+29.2	-72
0.16	0.1912	+32.3	-30	0.1757	+30.2	-43	0.1606	+28.9	-56	0.1477	+28.5	-70
0.20	0.1687	+30.4	-29	0.1549	+28.6	-41	0.1415	+27.8	-55	0.1299	+27.7	-69
0.24	0.1508	+28.3	-28	0.1385	+27.1	-39	0.1264	+26.7	-53	0.1158	+26.9	-67
0.28	0.1363	+26.1	-26	0.1252	+25.4	-38	0.1142	+25.4	-51	0.1045	+26.1	-65
0.32	0.1244	+23.8	-25	0.1143	+23.6	-37	0.1043	+24.1	-50	0.0953	+25.1	-64
0.36	0.1145	+21.4	-24	0.1052	+21.8	-35	0.0960	+22.7	-48	0.0877	+24.2	-62
0.40	0.1059	+18.9	-23	0.0975	+19.9	-34	0.0890	+21.3	-47	0.0812	+23.1	-60
0.44	0.0986	+16.2	-22	0.0908	+17.8	-33	0.0829	+19.7	-45	0.0757	+22.0	-59
0.48	0.0921	+13.4	-22	0.0849	+15.6	-32	0.0777	+18.1	-44	0.0710	+20.8	-57
0.52	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.56	0.0811	+ 7.3	-20	0.0751	+10.8	-30	0.0689	+14.4	-41	0.0631	+18.1	-54
0.60	0.0764	+ 3.9	-20	0.0709	+ 8.2	-29	0.0652	+12.4	-40	0.0598	+16.6	-52
0.64	0.0720	+ 0.3	-20	0.0670	+ 5.3	-28	0.0618	+10.2	-39	0.0568	+14.9	-51
0.68	0.0679	- 3.6	-19	0.0634	+ 2.2	-28	0.0587	+ 7.8	-38	0.0541	+13.1	-50
0.72	0.0641	- 7.9	-19	0.0600	- 1.1	-28	0.0557	+ 5.2	-37	0.0516	+11.1	-48
0.76	0.0604	-12.5	-20	0.0568	- 4.7	-28	0.0530	+ 2.3	-37	0.0493	+ 8.9	-47
0.80	0.0569	-17.5	-20	0.0537	- 8.7	-28	0.0504	- 0.9	-36	0.0471	+ 6.4	-46
0.84	0.0534	-22.8	-22	0.0507	-13.1	-28	0.0478	- 4.4	-36	0.0450	+ 3.6	-45
0.88	0.0499	-28.5	-24	0.0477	-17.9	-30	0.0453	- 8.5	-37	0.0429	+ 0.3	-45
0.92	0.0463	-34.3	-27	0.0446	-23.3	-32	0.0428	-13.2	-38	0.0409	- 3.7	-44
0.96	0.0423	-40.6	-33	0.0412	-29.5	-37	0.0400	-19.0	-41	0.0387	- 8.9	-45
1.00	0.0353	+39.8	+53	0.0353	-40.2	-53	0.0353	-30.2	-53	0.0353	-20.1	-52
0.96	0.0320	+35.2	+75	0.0326	+44.0	+72	0.0333	-37.2	-69	0.0342	-28.3	-65
0.92	0.0320	+34.3	+83	0.0326	+42.7	+80	0.0335	-39.0	-76	0.0345	-30.7	-71
0.88	0.0327	+33.9	+87	0.0333	+42.0	+84	0.0341	-40.0	-80	0.0352	-32.2	-75
0.84	0.0338	+33.7	+89	0.0343	+41.6	+87	0.0351	-40.7	-84	0.0362	-33.2	-79
0.80	0.0353	+33.8	+90	0.0356	+41.5	+89	0.0363	-41.1	-86	0.0374	-34.0	-81
0.76	0.0372	+33.9	+89	0.0373	+41.5	+90	0.0378	-41.3	-88	0.0389	-34.5	-84
0.72	0.0394	+34.2	+88	0.0393	+41.6	+90	0.0396	-41.4	-89	0.0406	-34.9	-86
0.68	0.0420	+34.6	+86	0.0416	+41.8	+89	0.0417	-41.4	-90	0.0425	-35.2	-87
0.64	0.0450	+35.0	+83	0.0443	+42.1	+88	0.0442	-41.3	-90	0.0448	-35.4	-88
0.60	0.0485	+35.5	+80	0.0475	+42.5	+86	0.0470	-41.2	-89	0.0474	-35.5	-89
0.56	0.0525	+36.0	+77	0.0511	+42.9	+84	0.0503	-41.0	-88	0.0504	-35.5	-89
0.52	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.48	0.0624	+37.3	+71	0.0601	+43.9	+80	0.0583	-40.4	-86	0.0577	-35.4	-90
0.44	0.0687	+38.0	+68	0.0657	+44.5	+77	0.0634	-40.0	-85	0.0624	-35.3	-89
0.40	0.0759	+38.8	+65	0.0723	-44.8	-75	0.0694	-39.5	-83	0.0678	-35.1	-89
0.36	0.0845	+39.7	+61	0.0801	-44.2	-72	0.0765	-39.1	-82	0.0743	-34.9	-88
0.32	0.0948	+40.6	+58	0.0894	-43.4	-69	0.0849	-38.6	-80	0.0821	-34.6	-87
0.28	0.1072	+41.6	+55	0.1008	-42.6	-67	0.0953	-38.0	-78	0.0915	-34.3	-86
0.24	0.1226	+42.7	+52	0.1148	-41.8	-64	0.1080	-37.4	-76	0.1032	-34.0	-85
0.20	0.1418	+43.8	+49	0.1324	-40.9	-62	0.1240	-36.7	-74	0.1179	-33.6	-84
0.16	0.1663	-44.8	-47	0.1548	-39.9	-59	0.1444	-36.0	-72	0.1366	-33.2	-83
0.12	0.1978	-43.7	-44	0.1836	-38.9	-57	0.1707	-35.3	-70	0.1607	-32.7	-81
0.08	0.2364	-42.3	-42	0.2190	-37.8	-55	0.2029	-34.5	-68	0.1903	-32.2	-80
0.04	0.2695	-40.9	-40	0.2491	-36.7	-52	0.2302	-33.7	-66	0.2150	-31.7	-78
0	0.2559	-40.0	-38	0.2359	-36.0	-50	0.2170	-33.2	-64	0.2017	-31.4	-77

TABLE 5 (continued)

μ	$\mu_o = 0.52; \varphi = 80^\circ$			$\mu_o = 0.52; \varphi = 90^\circ$			$\mu_o = 0.64; \varphi = 0^\circ$		$\mu_o = 0.64; \varphi = 10^\circ$		
	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	δ	I_1+I_r	χ°	δ
0	0.1916	+30.4	-87	0.1882	+30.1	-90	0.2931	+20	0.2902	-13.9	+22
0.04	0.2076	+29.9	-85	0.2029	+29.8	-89	0.3168	+17	0.3136	-15.5	+19
0.08	0.1867	+29.5	-84	0.1815	+29.8	-89	0.2880	+14	0.2850	-16.8	+16
0.12	0.1601	+29.1	-83	0.1549	+29.7	-89	0.2502	+12	0.2477	-18.3	+14
0.16	0.1382	+28.7	-82	0.1331	+29.6	-89	0.2187	+10	0.2164	-20.2	+12
0.20	0.1211	+28.3	-81	0.1161	+29.4	-88	0.1937	+ 8	0.1918	-22.5	+10
0.24	0.1077	+27.8	-79	0.1027	+29.3	-88	0.1739	+ 6	0.1721	-25.5	+ 8
0.28	0.0969	+27.3	-78	0.0921	+29.0	-87	0.1579	+ 4	0.1563	-29.3	+ 7
0.32	0.0882	+26.7	-76	0.0835	+28.8	-86	0.1447	+ 3	0.1432	-34.3	+ 6
0.36	0.0810	+26.1	-75	0.0764	+28.5	-85	0.1336	+ 1	0.1323	-40.6	+ 5
0.40	0.0749	+25.4	-73	0.0705	+28.1	-84	0.1241	0	0.1229	+41.8	- 4
0.44	0.0698	+24.6	-72	0.0654	+27.7	-82	0.1158	- 1	0.1147	+33.6	- 4
0.48	0.0653	+23.8	-70	0.0611	+27.2	-81	0.1086	- 2	0.1075	+25.7	- 4
0.52	. .	. .	. .	. .	. .	. .	0.1021	- 2	0.1011	+19.0	- 4
0.56	0.0581	+22.0	-67	0.0542	+26.1	-78	0.0961	- 3	0.0953	+13.2	- 4
0.60	0.0551	+20.9	-65	0.0514	+25.4	-76	0.0907	- 3	0.0900	+ 8.3	- 4
0.64	0.0524	+19.7	-63	0.0489	+24.7	-74	. .	. .	. .	. .	. .
0.68	0.0500	+18.4	-61	0.0466	+23.8	-72	0.0810	- 3	0.0804	- 2.0	- 3
0.72	0.0478	+17.0	-59	0.0447	+22.8	-70	0.0765	- 2	0.0759	- 9.1	- 3
0.76	0.0458	+15.3	-58	0.0429	+21.6	-68	0.0722	- 1	0.0717	-20.2	- 3
0.80	0.0440	+13.4	-56	0.0413	+20.2	-66	0.0679	0	0.0675	-38.0	- 3
0.84	0.0423	+11.2	-54	0.0398	+18.6	-63	0.0637	+ 2	0.0633	+34.8	+ 4
0.88	0.0406	+ 8.5	-53	0.0385	+16.5	-61	0.0594	+ 5	0.0591	+24.2	+ 6
0.92	0.0391	+ 5.3	-51	0.0373	+13.9	-58	0.0548	+ 9	0.0546	+18.1	+10
0.96	0.0375	+ 0.8	-50	0.0363	+10.1	-55	0.0496	+16	0.0495	+14.1	+17
1.00	0.0353	-10.1	-52	0.0353	0	-52	0.0400	+39	0.0400	+ 9.9	+39
0.96	0.0352	-19.3	-60	0.0363	+10.1	-55	0.0344	+68	0.0345	+ 8.3	+67
0.92	0.0358	-22.4	-65	0.0373	+13.9	-58	0.0337	+78	0.0337	+ 8.0	+76
0.88	0.0367	-24.4	-68	0.0385	+16.5	-61	0.0338	+85	0.0339	+ 7.9	+84
0.84	0.0378	-25.9	-72	0.0398	+18.6	-63	0.0346	+88	0.0347	+ 7.8	+88
0.80	0.0391	-27.0	-74	0.0413	+20.2	-66	0.0359	+90	0.0360	+ 7.8	+90
0.76	0.0406	-28.0	-77	0.0429	+21.6	-68	0.0377	+90	0.0377	+ 7.8	+90
0.72	0.0422	-28.7	-79	0.0447	+22.8	-70	0.0399	+88	0.0398	+ 7.9	+88
0.68	0.0441	-29.3	-81	0.0466	+23.8	-72	0.0425	+86	0.0424	+ 7.9	+86
0.64	0.0463	-29.8	-83	0.0489	+24.7	-74	. .	. .	. .	. .	. .
0.60	0.0488	-30.2	-85	0.0514	+25.4	-76	0.0493	+79	0.0492	+ 8.2	+80
0.56	0.0516	-30.6	-86	0.0542	+26.1	-78	0.0537	+74	0.0535	+ 8.3	+75
0.52	. .	. .	. .	. .	. .	. .	0.0587	+70	0.0584	+ 8.5	+71
0.48	0.0586	-31.1	-88	0.0611	+27.2	-81	0.0646	+66	0.0642	+ 8.7	+67
0.44	0.0630	-31.2	-89	0.0654	+27.7	-82	0.0714	+61	0.0710	+ 8.9	+62
0.40	0.0681	-31.3	-89	0.0705	+28.1	-84	0.0795	+56	0.0790	+ 9.2	+58
0.36	0.0742	-31.4	-90	0.0764	+28.5	-85	0.0891	+52	0.0885	+ 9.5	+53
0.32	0.0815	-31.4	-90	0.0835	+28.8	-86	0.1006	+48	0.0999	+ 9.8	+49
0.28	0.0903	-31.3	-90	0.0921	+29.0	-87	0.1147	+44	0.1137	+10.1	+45
0.24	0.1013	-31.3	-90	0.1027	+29.3	-88	0.1320	+39	0.1309	+10.5	+41
0.20	0.1150	-31.2	-89	0.1161	+29.4	-88	0.1538	+36	0.1524	+11.0	+37
0.16	0.1326	-31.0	-89	0.1331	+29.6	-89	0.1817	+32	0.1800	+11.5	+34
0.12	0.1552	-30.9	-88	0.1549	+29.7	-89	0.2176	+29	0.2156	+12.1	+30
0.08	0.1828	-30.7	-88	0.1815	+29.8	-89	0.2624	+25	0.2598	+12.8	+27
0.04	0.2055	-30.4	-87	0.2029	+29.8	-89	0.3024	+22	0.2994	+13.5	+24
0	0.1916	-30.4	-87	0.1882	+30.1	-90	0.2931	+20	0.2902	+13.9	+22

TABLE 5 (continued)

μ	$\mu_0 = 0.64$; $\varphi = 20^\circ$			$\mu_0 = 0.64$; $\varphi = 30^\circ$			$\mu_0 = 0.64$; $\varphi = 40^\circ$			$\mu_0 = 0.64$; $\varphi = 50^\circ$		
	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ
0	0.2816	-25.4	+27	0.2686	-34.0	+34	0.2525	-40.2	+44	0.2354	-44.6	+56
0.04	0.3044	-27.5	+24	0.2903	-36.0	+31	0.2729	-41.9	+41	0.2542	+44.0	-53
0.08	0.2766	-29.2	+21	0.2636	-37.6	+29	0.2476	-43.3	+39	0.2302	+42.9	-50
0.12	0.2403	-31.1	+19	0.2289	-39.3	+27	0.2148	-44.7	+36	0.1995	+41.7	-48
0.16	0.2100	-33.2	+17	0.2000	-41.2	+25	0.1875	+43.8	-34	0.1740	+40.5	-45
0.20	0.1860	-35.6	+15	0.1772	-43.2	+23	0.1661	+42.1	-32	0.1540	+39.2	-43
0.24	0.1670	-38.4	+14	0.1591	+44.6	-21	0.1491	+40.3	-30	0.1382	+37.8	-41
0.28	0.1517	-41.5	+12	0.1445	+42.1	-19	0.1355	+38.4	-28	0.1255	+36.3	-39
0.32	0.1390	+44.9	-11	0.1325	+39.5	-18	0.1242	+36.4	-26	0.1151	+34.7	-37
0.36	0.1284	+41.0	-10	0.1224	+36.6	-16	0.1149	+34.2	-25	0.1064	+33.0	-35
0.40	0.1193	+36.7	- 9	0.1138	+33.5	-15	0.1069	+31.8	-23	0.0991	+31.2	-33
0.44	0.1115	+32.1	- 8	0.1064	+30.2	-14	0.1000	+29.2	-22	0.0928	+29.2	-31
0.48	0.1046	+27.3	- 8	0.0999	+26.7	-13	0.0940	+26.5	-21	0.0873	+27.0	-30
0.52	0.0984	+22.4	- 7	0.0941	+22.9	-12	0.0886	+23.5	-19	0.0824	+24.7	-28
0.56	0.0928	+17.3	- 7	0.0888	+18.8	-12	0.0838	+20.3	-18	0.0781	+22.2	-27
0.60	0.0877	+12.2	- 6	0.0840	+14.6	-11	0.0794	+16.9	-17	0.0741	+19.6	-26
0.64	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.68	0.0785	+ 0.5	- 6	0.0755	+ 4.6	-10	0.0716	+ 9.0	-16	0.0672	+13.2	-23
0.72	0.0742	- 6.5	- 6	0.0715	- 1.1	-10	0.0681	+ 4.3	-15	0.0641	+ 9.6	-22
0.76	0.0702	-14.9	- 6	0.0678	- 7.6	-10	0.0647	- 0.8	-15	0.0611	+ 5.5	-22
0.80	0.0662	-25.2	- 6	0.0641	-15.1	-10	0.0614	- 6.6	-15	0.0582	+ 0.9	-21
0.84	0.0622	-36.3	- 7	0.0604	-23.4	-10	0.0581	-13.1	-15	0.0554	- 4.3	-21
0.88	0.0582	+43.2	+ 8	0.0567	-32.2	-12	0.0548	-20.4	-16	0.0525	-10.4	-21
0.92	0.0539	+34.7	+12	0.0528	-40.9	-14	0.0513	-28.4	-18	0.0495	-17.4	-22
0.96	0.0490	+27.7	+18	0.0483	+40.7	+20	0.0473	-37.1	-22	0.0462	-25.7	-25
1.00	0.0400	+19.8	+39	0.0400	+29.7	+39	0.0400	+39.7	+39	0.0400	-40.3	-39
0.96	0.0347	+16.6	+66	0.0351	+25.0	+64	0.0357	+33.3	+62	0.0364	+41.7	+59
0.92	0.0340	+16.0	+77	0.0344	+23.9	+75	0.0351	+31.8	+72	0.0359	+39.7	+68
0.88	0.0341	+15.7	+83	0.0346	+23.4	+81	0.0352	+31.0	+78	0.0361	+38.5	+74
0.84	0.0349	+15.5	+87	0.0352	+23.1	+86	0.0358	+30.5	+83	0.0367	+37.8	+80
0.80	0.0361	+15.5	+89	0.0364	+23.0	+89	0.0368	+30.3	+87	0.0376	+37.3	+83
0.76	0.0377	+15.5	+90	0.0379	+23.0	+90	0.0382	+30.2	+89	0.0389	+37.0	+86
0.72	0.0398	+15.6	+89	0.0398	+23.0	+90	0.0400	+30.1	+90	0.0405	+36.9	+88
0.68	0.0423	+15.7	+87	0.0421	+23.2	+89	0.0421	+30.2	+90	0.0425	+36.8	+89
0.64	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.60	0.0488	+16.1	+82	0.0482	+23.6	+85	0.0477	+30.5	+88	0.0475	+36.9	+90
0.56	0.0529	+16.4	+78	0.0520	+23.9	+82	0.0513	+30.8	+86	0.0508	+37.1	+89
0.52	0.0577	+16.7	+74	0.0566	+24.3	+79	0.0554	+31.2	+84	0.0546	+37.3	+88
0.48	0.0632	+17.0	+70	0.0618	+24.7	+75	0.0603	+31.5	+81	0.0590	+37.6	+86
0.44	0.0698	+17.4	+66	0.0680	+25.1	+72	0.0660	+32.0	+78	0.0642	+37.9	+84
0.40	0.0775	+17.9	+62	0.0752	+25.7	+68	0.0727	+32.5	+75	0.0704	+38.3	+82
0.36	0.0866	+18.3	+58	0.0839	+26.2	+64	0.0808	+33.0	+72	0.0778	+38.7	+80
0.32	0.0976	+18.9	+54	0.0943	+26.9	+60	0.0905	+33.6	+69	0.0868	+39.2	+77
0.28	0.1111	+19.5	+50	0.1070	+27.5	+57	0.1023	+34.3	+65	0.0977	+39.8	+75
0.24	0.1276	+20.1	+46	0.1228	+28.3	+53	0.1170	+35.0	+62	0.1112	+40.4	+72
0.20	0.1485	+20.9	+42	0.1426	+29.1	+49	0.1355	+35.8	+59	0.1283	+41.0	+69
0.16	0.1752	+21.7	+39	0.1679	+30.0	+46	0.1592	+36.6	+56	0.1502	+41.7	+66
0.12	0.2097	+22.6	+35	0.2007	+31.0	+43	0.1898	+37.5	+53	0.1786	+42.4	+64
0.08	0.2525	+23.7	+32	0.2414	+32.1	+40	0.2279	+38.5	+50	0.2138	+43.3	+61
0.04	0.2909	+24.8	+29	0.2778	+33.3	+37	0.2618	+39.5	+47	0.2449	+44.1	+58
0	0.2816	+25.4	+27	0.2686	+34.0	+34	0.2525	+40.2	+44	0.2354	+44.6	+56

TABLE 5 (continued)

μ	$\mu_o = 0.64; \varphi = 60^\circ$			$\mu_o = 0.64; \varphi = 70^\circ$			$\mu_o = 0.64; \varphi = 80^\circ$			$\mu_o = 0.64; \varphi = 90^\circ$		
	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ
0	0.2194	+42.2	-68	0.2063	+40.2	-79	0.1978	+39.0	-87	0.1948	+38.6	-90
0.04	0.2365	+41.2	-65	0.2217	+39.4	-77	0.2116	+38.5	-85	0.2073	+38.3	-89
0.08	0.2136	+40.3	-63	0.1996	+38.8	-75	0.1895	+36.2	-84	0.1846	+38.3	-89
0.12	0.1847	+39.5	-60	0.1719	+38.2	-73	0.1626	+37.8	-83	0.1574	+38.2	-89
0.16	0.1608	+38.6	-58	0.1492	+37.6	-71	0.1405	+37.4	-81	0.1353	+38.0	-88
0.20	0.1421	+37.6	-56	0.1315	+36.9	-68	0.1233	+37.0	-80	0.1182	+37.9	-87
0.24	0.1273	+36.5	-53	0.1176	+36.1	-66	0.1099	+36.5	-78	0.1048	+37.7	-86
0.28	0.1155	+35.4	-51	0.1065	+35.3	-64	0.0992	+36.0	-76	0.0942	+37.4	-85
0.32	0.1059	+34.2	-49	0.0975	+34.4	-62	0.0906	+35.4	-74	0.0856	+37.1	-84
0.36	0.0979	+32.8	-47	0.0900	+33.5	-60	0.0835	+34.8	-72	0.0786	+36.7	-82
0.40	0.0912	+31.4	-45	0.0838	+32.4	-57	0.0775	+34.1	-70	0.0728	+36.3	-80
0.44	0.0854	+29.9	-43	0.0785	+31.3	-55	0.0725	+33.3	-67	0.0679	+35.8	-78
0.48	0.0804	+28.3	-41	0.0739	+30.1	-53	0.0682	+32.4	-65	0.0637	+35.3	-76
0.52	0.0760	+26.5	-39	0.0699	+28.7	-51	0.0645	+31.4	-63	0.0602	+34.6	-74
0.56	0.0721	+24.5	-37	0.0664	+27.3	-49	0.0613	+30.4	-61	0.0570	+33.9	-72
0.60	0.0686	+22.5	-35	0.0633	+25.7	-46	0.0584	+29.2	-58	0.0544	+33.1	-69
0.64	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.68	0.0625	+17.5	-32	0.0579	+21.9	-42	0.0536	+26.4	-53	0.0500	+31.1	-64
0.72	0.0598	+14.7	-31	0.0556	+19.7	-40	0.0516	+24.7	-51	0.0481	+29.9	-61
0.76	0.0573	+11.5	-30	0.0534	+17.2	-39	0.0498	+22.8	-48	0.0465	+28.4	-58
0.80	0.0548	+ 7.8	-28	0.0514	+14.3	-37	0.0481	+20.5	-46	0.0451	+26.7	-55
0.84	0.0524	+ 3.6	-28	0.0494	+10.9	-35	0.0465	+17.9	-44	0.0438	+24.7	-52
0.88	0.0501	- 1.4	-27	0.0475	+ 6.8	-34	0.0450	+14.6	-41	0.0427	+22.1	-49
0.92	0.0476	- 7.4	-27	0.0456	+ 1.8	-33	0.0436	+10.4	-39	0.0417	+18.7	-45
0.96	0.0449	-15.0	-29	0.0435	- 5.0	-33	0.0421	+ 4.6	-37	0.0408	+13.8	-42
1.00	0.0400	-30.3	-38	0.0400	-20.2	-38	0.0400	-10.1	-38	0.0400	0	-38
0.96	0.0373	-39.9	-55	0.0383	-31.4	-51	0.0395	-22.7	-46	0.0408	+13.8	-42
0.92	0.0370	-42.5	-63	0.0384	-34.7	-58	0.0399	-26.8	-52	0.0417	+18.7	-45
0.88	0.0373	-44.1	-69	0.0388	-36.8	-63	0.0406	-29.5	-56	0.0427	+22.1	-49
0.84	0.0379	+44.8	+74	0.0395	-38.3	-68	0.0415	-31.5	-60	0.0438	+24.7	-52
0.80	0.0388	+44.1	+79	0.0404	-39.4	-72	0.0425	-33.0	-64	0.0451	+26.7	-55
0.76	0.0400	+43.6	+82	0.0416	-40.2	-76	0.0438	-34.2	-68	0.0465	+28.4	-58
0.72	0.0415	+43.2	+85	0.0430	-40.9	-79	0.0453	-35.2	-71	0.0481	+29.9	-61
0.68	0.0433	+42.9	+87	0.0447	-41.4	-82	0.0470	-36.1	-74	0.0500	+31.1	-64
0.64	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.60	0.0479	+42.6	+89	0.0491	-42.1	-86	0.0512	-37.4	-79	0.0544	+33.1	-69
0.56	0.0509	+42.7	+90	0.0519	-42.3	-87	0.0539	-37.9	-81	0.0570	+33.9	-72
0.52	0.0544	+42.7	+90	0.0551	-42.5	-88	0.0570	-38.3	-83	0.0602	+34.6	-74
0.48	0.0584	+42.8	+89	0.0589	-42.6	-89	0.0606	-38.6	-85	0.0637	+35.3	-76
0.44	0.0632	+43.0	+89	0.0633	-42.6	-90	0.0648	-38.9	-86	0.0679	+35.8	-78
0.40	0.0689	+43.2	+88	0.0686	-42.6	-90	0.0698	-39.1	-87	0.0728	+36.3	-80
0.36	0.0757	+43.5	+86	0.0748	-42.5	-90	0.0757	-39.3	-88	0.0786	+36.7	-82
0.32	0.0839	+43.8	+85	0.0824	-42.4	-89	0.0829	-39.4	-89	0.0856	+37.1	-84
0.28	0.0939	+44.2	+83	0.0917	-42.2	-88	0.0917	-39.5	-89	0.0942	+37.4	-85
0.24	0.1063	+44.6	+81	0.1032	-42.0	-88	0.1026	-39.5	-90	0.1048	+37.7	-86
0.20	0.1221	-44.9	-79	0.1178	-41.8	-86	0.1164	-39.4	-90	0.1182	+37.9	-87
0.16	0.1423	-44.4	-77	0.1366	-41.5	-85	0.1341	-39.4	-89	0.1353	+38.0	-88
0.12	0.1684	-43.8	-75	0.1608	-41.1	-84	0.1569	-39.3	-89	0.1574	+38.2	-89
0.08	0.2008	-43.2	-72	0.1908	-40.8	-82	0.1851	-39.1	-88	0.1846	+38.3	-89
0.04	0.2293	-42.6	-70	0.2168	-40.3	-80	0.2091	-39.0	-88	0.2073	+38.3	-89
0	0.2194	-42.2	-68	0.2063	-40.2	-79	0.1978	-39.0	-87	0.1948	+38.6	-90

TABLE 5 (continued)

μ	$\mu_0 = 0.72; \varphi = 0^\circ$		$\mu_0 = 0.72; \varphi = 10^\circ$			$\mu_0 = 0.72; \varphi = 20^\circ$			$\mu_0 = 0.72; \varphi = 30^\circ$		
	I_1+I_r	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ
0	0.2795	+29	0.2771	-10.6	+31	0.2699	-20.1	+35	0.2590	-27.7	+42
0.04	0.3010	+25	0.2983	-11.5	+27	0.2906	-21.4	+31	0.2787	-29.1	+38
0.08	0.2736	+22	0.2711	-12.2	+24	0.2640	-22.4	+28	0.2530	-30.2	+35
0.12	0.2361	+19	0.2360	-12.9	+21	0.2297	-23.6	+25	0.2200	-31.5	+32
0.16	0.2086	+17	0.2067	-13.8	+18	0.2012	-24.9	+23	0.1926	-32.8	+30
0.20	0.1854	+14	0.1837	-14.9	+16	0.1788	-26.4	+20	0.1711	-34.3	+27
0.24	0.1670	+12	0.1654	-16.3	+14	0.1610	-28.2	+18	0.1541	-36.0	+25
0.28	0.1521	+10	0.1507	-17.9	+12	0.1467	-30.2	+16	0.1404	-37.8	+22
0.32	0.1399	+ 8	0.1387	-20.0	+10	0.1350	-32.6	+14	0.1292	-39.9	+20
0.36	0.1297	+ 6	0.1285	-22.6	+ 8	0.1252	-35.3	+12	0.1199	-42.2	+19
0.40	0.1210	+ 4	0.1199	-26.2	+ 6	0.1168	-38.5	+11	0.1119	-44.8	+17
0.44	0.1134	+ 3	0.1125	-31.0	+ 5	0.1096	-42.3	+ 9	0.1051	+42.3	-15
0.48	0.1068	+ 2	0.1059	-37.4	+ 4	0.1032	+43.5	- 8	0.0990	+39.1	-14
0.52	0.1009	0	0.1000	+44.3	- 3	0.0976	+38.6	- 7	0.0937	+35.5	-13
0.56	0.0955	0	0.0947	+34.8	- 3	0.0925	+33.2	- 7	0.0889	+31.6	-11
0.60	0.0906	- 1	0.0899	+25.5	- 3	0.0878	+27.4	- 6	0.0845	+27.3	-10
0.64	0.0861	- 2	0.0854	+17.4	- 3	0.0835	+21.2	- 6	0.0805	+22.5	-10
0.68	0.0818	- 2	0.0812	+10.5	- 3	0.0795	+14.7	- 5	0.0767	+17.2	- 9
0.72	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.76	0.0738	- 2	0.0733	- 3.2	- 2	0.0719	- 0.1	- 5	0.0697	+ 4.7	- 8
0.80	0.0699	- 1	0.0695	-14.9	- 2	0.0683	-10.2	- 4	0.0663	- 3.2	- 7
0.84	0.0661	0	0.0657	-35.5	- 2	0.0647	-22.7	- 4	0.0630	-12.5	- 7
0.88	0.0621	+ 2	0.0618	+33.0	+ 3	0.0609	-37.1	- 5	0.0595	-23.3	- 8
0.92	0.0579	+ 5	0.0576	+21.5	+ 6	0.0570	+39.9	+ 7	0.0559	-35.0	-10
0.96	0.0529	+11	0.0528	+15.3	+11	0.0523	+30.0	+12	0.0516	+43.7	+13
1.00	0.0434	+30	0.0434	+ 9.8	+30	0.0434	+19.7	+30	0.0434	+29.6	+30
0.96	0.0373	+57	0.0374	+ 7.9	+57	0.0377	+15.8	+56	0.0381	+23.7	+54
0.92	0.0361	+69	0.0362	+ 7.5	+68	0.0365	+15.0	+67	0.0370	+22.4	+65
0.88	0.0358	+77	0.0359	+ 7.3	+77	0.0362	+14.5	+75	0.0368	+21.7	+73
0.84	0.0361	+83	0.0362	+ 7.1	+83	0.0365	+14.2	+81	0.0370	+21.2	+79
0.80	0.0370	+87	0.0370	+ 7.1	+87	0.0373	+14.1	+86	0.0378	+20.9	+84
0.76	0.0383	+89	0.0383	+ 7.0	+89	0.0385	+14.0	+89	0.0389	+20.8	+87
0.72	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.68	0.0422	+90	0.0422	+ 7.1	+90	0.0423	+14.0	+90	0.0424	+20.7	+90
0.64	0.0448	+89	0.0448	+ 7.1	+89	0.0448	+14.1	+89	0.0448	+20.7	+90
0.60	0.0480	+86	0.0480	+ 7.2	+87	0.0478	+14.2	+88	0.0476	+20.8	+89
0.56	0.0518	+84	0.0517	+ 7.3	+84	0.0514	+14.3	+86	0.0510	+21.0	+88
0.52	0.0562	+80	0.0561	+ 7.4	+81	0.0556	+14.5	+83	0.0551	+21.2	+86
0.48	0.0615	+76	0.0613	+ 7.5	+77	0.0607	+14.7	+80	0.0598	+21.4	+83
0.44	0.0677	+72	0.0674	+ 7.6	+73	0.0666	+14.9	+76	0.0655	+21.7	+80
0.40	0.0751	+68	0.0747	+ 7.8	+69	0.0737	+15.2	+72	0.0722	+22.0	+77
0.36	0.0839	+64	0.0834	+ 7.9	+65	0.0821	+15.5	+68	0.0802	+22.4	+73
0.32	0.0946	+60	0.0940	+ 8.1	+61	0.0924	+15.8	+64	0.0900	+22.8	+70
0.28	0.1076	+55	0.1069	+ 8.4	+57	0.1049	+16.2	+60	0.1019	+23.3	+66
0.24	0.1238	+51	0.1229	+ 8.6	+52	0.1204	+16.7	+56	0.1167	+23.8	+62
0.20	0.1442	+47	0.1431	+ 8.9	+48	0.1401	+17.1	+52	0.1355	+24.3	+59
0.16	0.1705	+43	0.1692	+ 9.2	+44	0.1654	+17.7	+49	0.1596	+25.0	+55
0.12	0.2045	+39	0.2029	+ 9.6	+41	0.1981	+18.3	+45	0.1910	+25.6	+51
0.08	0.2471	+35	0.2451	+ 9.9	+37	0.2391	+18.9	+41	0.2301	+26.4	+48
0.04	0.2861	+32	0.2836	+10.4	+33	0.2766	+19.6	+38	0.2658	+27.2	+45
0	0.2795	+29	0.2771	+10.6	+31	0.2699	+20.1	+35	0.2590	+27.7	+42

TABLE 5 (continued)

μ	$\mu_o = 0.72; \varphi = 40^\circ$			$\mu_o = 0.72; \varphi = 50^\circ$			$\mu_o = 0.72; \varphi = 60^\circ$			$\mu_o = 0.72; \varphi = 70^\circ$		
	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ
0	0.2456	-33.6	+51	0.2313	-38.0	+61	0.2179	-41.2	+72	0.2069	-43.4	+81
0.04	0.2641	-34.9	+47	0.2484	-39.2	+57	0.2335	-42.1	+68	0.2210	-44.0	+78
0.08	0.2394	-36.0	+44	0.2248	-40.0	+54	0.2106	-42.8	+66	0.1986	-44.5	+76
0.12	0.2080	-37.1	+41	0.1949	-41.0	+52	0.1822	-43.5	+63	0.1711	+45.0	-74
0.16	0.1820	-38.3	+38	0.1703	-42.0	+49	0.1588	-44.3	+60	0.1487	+44.4	-72
0.20	0.1616	-39.6	+36	0.1510	-43.1	+46	0.1406	+44.8	-57	0.1312	+43.8	-69
0.24	0.1455	-41.0	+33	0.1359	-44.2	+43	0.1263	+43.9	-55	0.1176	+43.1	-66
0.28	0.1325	-42.6	+31	0.1237	+44.5	-41	0.1149	+42.9	-52	0.1067	+42.3	-64
0.32	0.1220	-44.4	+29	0.1139	+43.1	-38	0.1056	+41.8	-49	0.0980	+41.5	-61
0.36	0.1132	+43.8	-26	0.1056	+41.5	-36	0.0980	+40.6	-47	0.0907	+40.6	-59
0.40	0.1057	+41.7	-24	0.0987	+39.9	-34	0.0915	+39.3	-44	0.0847	+39.6	-56
0.44	0.0993	+39.4	-23	0.0928	+38.0	-32	0.0860	+37.9	-42	0.0796	+38.5	-53
0.48	0.0937	+36.9	-21	0.0876	+36.1	-29	0.0813	+36.3	-40	0.0752	+37.4	-51
0.52	0.0887	+34.1	-19	0.0831	+33.9	-27	0.0772	+34.6	-37	0.0714	+36.0	-48
0.56	0.0843	+31.0	-18	0.0790	+31.5	-26	0.0735	+32.7	-35	0.0681	+34.6	-45
0.60	0.0803	+27.7	-16	0.0754	+28.8	-24	0.0703	+30.6	-33	0.0652	+33.0	-43
0.64	0.0766	+23.9	-15	0.0721	+25.8	-22	0.0673	+28.3	-31	0.0625	+31.1	-40
0.68	0.0732	+19.6	-14	0.0690	+22.5	-21	0.0646	+25.6	-29	0.0602	+29.1	-38
0.72	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.76	0.0668	+ 9.7	-12	0.0634	+14.5	-18	0.0597	+19.3	-25	0.0560	+24.1	-33
0.80	0.0637	+ 3.4	-12	0.0607	+ 9.5	-17	0.0575	+15.3	-24	0.0541	+21.0	-31
0.84	0.0607	- 3.9	-12	0.0581	+ 3.8	-17	0.0553	+10.7	-22	0.0523	+17.3	-29
0.88	0.0577	-12.4	-12	0.0555	- 3.1	-16	0.0531	+ 5.1	-21	0.0506	+12.7	-27
0.92	0.0544	-22.4	-13	0.0527	-11.6	-16	0.0508	- 2.0	-21	0.0488	+ 6.8	-26
0.96	0.0507	-33.6	-16	0.0495	-22.0	-18	0.0483	-11.3	-21	0.0469	- 1.3	-25
1.00	0.0434	+39.5	+29	0.0434	-40.5	-29	0.0434	-30.4	-29	0.0434	-20.3	-29
0.96	0.0387	+31.7	+51	0.0395	+39.7	+48	0.0404	-42.2	-45	0.0415	-34.0	-41
0.92	0.0377	+29.8	+62	0.0387	+37.2	+58	0.0399	+44.6	+53	0.0414	-38.0	-48
0.88	0.0375	+28.7	+70	0.0386	+35.7	+65	0.0400	+42.6	+60	0.0416	-40.5	-54
0.84	0.0378	+28.1	+76	0.0389	+34.8	+71	0.0403	+41.3	+66	0.0421	-42.3	-59
0.80	0.0385	+27.6	+81	0.0395	+34.1	+77	0.0410	+40.3	+71	0.0428	-43.6	-64
0.76	0.0396	+27.3	+85	0.0405	+33.6	+81	0.0420	+39.6	+75	0.0438	-44.7	-68
0.72	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.68	0.0428	+27.1	+89	0.0436	+33.1	+87	0.0448	+38.6	+82	0.0466	+43.8	+76
0.64	0.0450	+27.0	+90	0.0456	+32.9	+88	0.0467	+38.3	+85	0.0484	+43.3	+79
0.60	0.0477	+27.1	+90	0.0480	+32.8	+89	0.0490	+38.1	+87	0.0506	+42.8	+82
0.56	0.0508	+27.2	+89	0.0509	+32.8	+90	0.0517	+37.9	+88	0.0531	+42.5	+84
0.52	0.0546	+27.3	+88	0.0544	+32.9	+90	0.0549	+37.9	+89	0.0562	+42.2	+86
0.48	0.0590	+27.6	+87	0.0585	+33.0	+89	0.0587	+37.8	+90	0.0597	+42.0	+87
0.44	0.0643	+27.8	+85	0.0634	+33.2	+88	0.0632	+37.9	+90	0.0640	+41.9	+89
0.40	0.0705	+28.1	+82	0.0692	+33.4	+87	0.0686	+38.0	+90	0.0690	+41.8	+89
0.36	0.0781	+28.5	+79	0.0762	+33.7	+85	0.0751	+38.1	+89	0.0751	+41.8	+90
0.32	0.0872	+28.9	+76	0.0847	+34.0	+83	0.0829	+38.3	+88	0.0824	+41.8	+90
0.28	0.0984	+29.3	+73	0.0951	+34.4	+80	0.0926	+38.6	+86	0.0915	+41.9	+90
0.24	0.1124	+29.8	+70	0.1081	+34.8	+78	0.1047	+38.8	+85	0.1028	+42.0	+89
0.20	0.1300	+30.4	+67	0.1246	+35.3	+75	0.1200	+39.2	+83	0.1172	+42.2	+88
0.16	0.1528	+31.0	+63	0.1458	+35.8	+72	0.1398	+39.5	+81	0.1356	+42.4	+87
0.12	0.1823	+31.6	+60	0.1734	+36.4	+69	0.1654	+40.0	+78	0.1596	+42.6	+86
0.08	0.2192	+32.4	+57	0.2078	+37.0	+66	0.1974	+40.4	+76	0.1895	+42.9	+84
0.04	0.2527	+33.1	+53	0.2388	+37.6	+63	0.2260	+40.9	+74	0.2159	+43.2	+82
0	0.2456	+33.6	+51	0.2313	+38.0	+61	0.2179	+41.2	+72	0.2069	+43.4	+81

TABLE 5 (continued)

μ	$\mu_0 = 0.72; \varphi = 80^\circ$			$\mu_0 = 0.72; \varphi = 90^\circ$			$\mu_0 = 0.80; \varphi = 0^\circ$		$\mu_0 = 0.80; \varphi = 10^\circ$		
	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	δ	I_1+I_r	χ°	δ
0	0.1998	-44.6	+88	0.1973	+45.0	-90	0.2614	+41	0.2595	- 8.0	+43
0.04	0.2123	+45.0	-86	0.2085	+44.8	-90	0.2804	+37	0.2783	- 8.4	+38
0.08	0.1898	+44.7	-85	0.1853	+44.7	-89	0.2548	+33	0.2529	- 8.8	+35
0.12	0.1628	+44.4	-83	0.1580	+44.6	-89	0.2221	+30	0.2204	- 9.2	+31
0.16	0.1408	+44.0	-81	0.1359	+44.4	-88	0.1950	+27	0.1935	- 9.6	+28
0.20	0.1238	+43.6	-79	0.1188	+44.3	-87	0.1738	+24	0.1724	-10.1	+25
0.24	0.1105	+43.2	-77	0.1055	+44.0	-85	0.1570	+21	0.1558	-10.8	+22
0.28	0.1000	+42.7	-75	0.0950	+43.8	-84	0.1436	+18	0.1424	-11.5	+19
0.32	0.0915	+42.1	-73	0.0866	+43.4	-82	0.1326	+15	0.1315	-12.3	+17
0.36	0.0845	+41.5	-70	0.0797	+43.0	-80	0.1234	+13	0.1224	-13.4	+14
0.40	0.0788	+40.8	-68	0.0740	+42.6	-78	0.1156	+11	0.1147	-14.7	+12
0.44	0.0739	+40.0	-65	0.0693	+42.1	-75	0.1089	+ 9	0.1081	-16.3	+10
0.48	0.0698	+39.1	-62	0.0653	+41.5	-73	0.1030	+ 7	0.1022	-18.5	+ 8
0.52	0.0662	+38.1	-59	0.0618	+40.8	-70	0.0978	+ 5	0.0971	-21.4	+ 6
0.56	0.0631	+37.0	-57	0.0589	+40.0	-67	0.0931	+ 3	0.0925	-25.5	+ 5
0.60	0.0605	+35.8	-54	0.0564	+39.1	-64	0.0889	+ 2	0.0883	-31.5	+ 4
0.64	0.0581	+34.4	-51	0.0542	+38.1	-61	0.0849	+ 1	0.0844	-40.2	+ 3
0.68	0.0560	+32.8	-48	0.0523	+36.9	-58	0.0812	0	0.0807	+38.3	- 2
0.72	. .	. .	. .	. .	. .	. .	0.0777	- 1	0.0772	+25.8	- 2
0.76	0.0524	+29.0	-42	0.0491	+34.0	-51	0.0743	- 1	0.0739	+15.0	- 2
0.80	0.0508	+26.5	-39	0.0478	+32.1	-48	. .	. .	. .	. .	. .
0.84	0.0494	+23.6	-37	0.0467	+29.8	-44	0.0676	- 1	0.0673	- 7.4	- 1
0.88	0.0481	+19.9	-34	0.0457	+26.9	-41	0.0642	0	0.0639	-32.8	- 1
0.92	0.0468	+15.0	-31	0.0449	+22.9	-37	0.0605	+ 2	0.0603	+29.0	+ 2
0.96	0.0455	+ 8.1	-29	0.0441	+17.0	-33	0.0561	+ 6	0.0559	+17.3	+ 6
1.00	0.0434	-10.2	-29	0.0434	0	-29	0.0472	+21	0.0472	+ 9.8	+21
0.96	0.0428	-25.7	-37	0.0441	+17.0	-33	0.0409	+45	0.0410	+ 7.4	+45
0.92	0.0430	-30.5	-42	0.0449	+22.9	-37	0.0393	+57	0.0394	+ 6.9	+56
0.88	0.0435	-33.7	-47	0.0457	+26.9	-41	0.0387	+66	0.0388	+ 6.6	+66
0.84	0.0442	-36.0	-52	0.0467	+29.8	-44	0.0386	+74	0.0387	+ 6.4	+73
0.80	0.0451	-37.8	-56	0.0478	+32.1	-48	. .	. .	. .	. .	. .
0.76	0.0462	-39.3	-60	0.0491	+34.0	-51	0.0398	+84	0.0399	+ 6.2	+84
0.72	. .	. .	. .	. .	. .	. .	0.0411	+88	0.0412	+ 6.1	+87
0.68	0.0491	-41.4	-68	0.0523	+36.9	-58	0.0428	+90	0.0428	+ 6.1	+89
0.64	0.0509	-42.2	-71	0.0542	+38.1	-61	0.0449	+91	0.0449	+ 6.1	+91
0.60	0.0531	-42.9	-74	0.0564	+39.1	-64	0.0475	+91	0.0475	+ 6.1	+91
0.56	0.0555	-43.5	-77	0.0589	+40.0	-67	0.0507	+90	0.0507	+ 6.1	+90
0.52	0.0585	-44.0	-79	0.0618	+40.8	-70	0.0545	+88	0.0544	+ 6.2	+89
0.48	0.0619	-44.4	-82	0.0653	+41.5	-73	0.0590	+86	0.0589	+ 6.2	+87
0.44	0.0660	-44.8	-84	0.0693	+42.1	-75	0.0645	+83	0.0643	+ 6.3	+84
0.40	0.0708	+44.9	+85	0.0740	+42.6	-78	0.0710	+80	0.0708	+ 6.4	+61
0.36	0.0766	+44.7	+87	0.0797	+43.0	-80	0.0789	+77	0.0786	+ 6.5	+77
0.32	0.0836	+44.5	+88	0.0866	+43.4	-82	0.0885	+73	0.0881	+ 6.6	+74
0.28	0.0922	+44.4	+89	0.0950	+43.8	-84	0.1003	+69	0.0999	+ 6.7	+70
0.24	0.1030	+44.4	+89	0.1055	+44.0	-85	0.1151	+65	0.1145	+ 6.8	+66
0.20	0.1166	+44.3	+90	0.1188	+44.3	-87	0.1338	+61	0.1330	+ 7.0	+62
0.16	0.1342	+44.4	+90	0.1359	+44.4	-88	0.1580	+56	0.1570	+ 7.2	+58
0.12	0.1570	+44.4	+89	0.1580	+44.6	-89	0.1895	+52	0.1883	+ 7.4	+53
0.08	0.1852	+44.5	+89	0.1853	+44.7	-89	0.2291	+48	0.2276	+ 7.6	+49
0.04	0.2097	+44.6	+88	0.2085	+44.8	-90	0.2658	+44	0.2640	+ 7.8	+46
0	0.1998	+44.6	+88	0.1973	+45.0	-90	0.2614	+41	0.2595	+ 8.0	+43

TABLE 5 (continued)

μ	$\mu_0 = 0.80; \varphi = 20^\circ$			$\mu_0 = 0.80; \varphi = 30^\circ$			$\mu_0 = 0.80; \varphi = 40^\circ$			$\mu_0 = 0.80; \varphi = 50^\circ$		
	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ
0	0.2541	-15.4	+46	0.2457	-21.7	+52	0.2355	-26.9	+59	0.2246	-31.0	+68
0.04	0.2724	-16.1	+42	0.2633	-22.6	+48	0.2520	-27.8	+55	0.2399	-31.8	+64
0.08	0.2474	-16.7	+38	0.2389	-23.3	+44	0.2283	-28.5	+52	0.2168	-32.4	+60
0.12	0.2155	-17.4	+35	0.2079	-24.1	+41	0.1985	-29.3	+48	0.1882	-33.1	+57
0.16	0.1892	-18.1	+32	0.1824	-25.0	+37	0.1739	-30.1	+45	0.1646	-33.9	+54
0.20	0.1685	-19.0	+28	0.1624	-25.9	+34	0.1547	-31.1	+42	0.1462	-34.7	+51
0.24	0.1522	-20.0	+26	0.1467	-27.0	+31	0.1397	-32.1	+39	0.1319	-35.6	+48
0.28	0.1392	-21.1	+23	0.1341	-28.2	+28	0.1276	-33.3	+36	0.1204	-36.6	+44
0.32	0.1285	-22.4	+20	0.1238	-29.6	+26	0.1178	-34.6	+33	0.1111	-37.7	+41
0.36	0.1196	-23.9	+18	0.1153	-31.2	+23	0.1097	-36.0	+30	0.1034	-39.0	+39
0.40	0.1121	-25.7	+15	0.1081	-33.0	+21	0.1029	-37.6	+27	0.0970	-40.3	+36
0.44	0.1057	-27.9	+13	0.1019	-35.1	+18	0.0970	-39.4	+25	0.0915	-41.8	+33
0.48	0.1000	-30.5	+11	0.0965	-37.4	+16	0.0920	-41.4	+23	0.0868	-43.5	+30
0.52	0.0950	-33.6	+10	0.0917	-40.2	+14	0.0875	-43.7	+20	0.0827	+44.6	-28
0.56	0.0905	-37.5	+ 8	0.0875	-43.3	+13	0.0836	+43.7	-18	0.0790	+42.4	-26
0.60	0.0865	-42.2	+ 7	0.0836	+43.0	-11	0.0800	+40.7	-17	0.0757	+40.0	-23
0.64	0.0827	+42.1	- 6	0.0801	+38.7	-10	0.0767	+37.3	-15	0.0728	+37.3	-21
0.68	0.0792	+35.4	- 5	0.0768	+33.7	- 9	0.0737	+33.4	-13	0.0700	+34.1	-19
0.72	0.0759	+27.7	- 4	0.0737	+27.9	- 8	0.0708	+28.8	-12	0.0675	+30.5	-17
0.76	0.0727	+19.1	- 4	0.0707	+21.2	- 7	0.0681	+23.5	-11	0.0651	+26.2	-16
0.80	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.84	0.0664	- 2.9	- 3	0.0649	+ 3.4	- 5	0.0629	+ 9.4	- 9	0.0605	+15.0	-13
0.88	0.0632	-19.7	- 3	0.0619	- 9.2	- 5	0.0602	- 0.4	- 8	0.0582	+ 7.2	-12
0.92	0.0596	-40.0	- 4	0.0587	-24.8	- 6	0.0573	-12.9	- 8	0.0558	- 2.9	-11
0.96	0.0555	+33.7	+ 7	0.0549	-41.4	- 8	0.0540	-28.1	-10	0.0529	-16.3	-12
1.00	0.0472	+19.5	+21	0.0472	+29.4	+21	0.0472	+39.3	+21	0.0472	-40.7	-20
0.96	0.0413	+14.8	+44	0.0417	+22.2	+42	0.0424	+29.6	+40	0.0432	+37.1	+37
0.92	0.0398	+13.7	+55	0.0403	+20.5	+53	0.0411	+27.3	+50	0.0422	+34.1	+47
0.88	0.0392	+13.1	+64	0.0398	+19.6	+62	0.0407	+26.0	+58	0.0418	+32.3	+54
0.84	0.0391	+12.7	+72	0.0397	+18.9	+69	0.0406	+25.1	+66	0.0418	+31.1	+61
0.80	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.76	0.0403	+12.3	+83	0.0408	+18.2	+80	0.0417	+24.0	+77	0.0429	+29.6	+72
0.72	0.0415	+12.2	+86	0.0420	+18.0	+84	0.0428	+23.7	+81	0.0440	+29.1	+77
0.68	0.0431	+12.1	+89	0.0435	+17.9	+87	0.0442	+23.5	+85	0.0453	+28.7	+81
0.64	0.0451	+12.1	+90	0.0454	+17.8	+89	0.0460	+23.3	+87	0.0470	+28.4	+84
0.60	0.0476	+12.1	+91	0.0478	+17.8	+90	0.0483	+23.2	+89	0.0492	+28.2	+87
0.56	0.0507	+12.1	+90	0.0507	+17.8	+91	0.0510	+23.2	+90	0.0517	+28.1	+88
0.52	0.0543	+12.2	+89	0.0542	+17.9	+90	0.0543	+23.2	+91	0.0548	+28.0	+90
0.48	0.0587	+12.3	+88	0.0584	+18.0	+89	0.0583	+23.2	+90	0.0585	+28.0	+90
0.44	0.0640	+12.4	+85	0.0634	+18.1	+88	0.0630	+23.3	+90	0.0630	+28.0	+91
0.40	0.0702	+12.5	+83	0.0695	+18.3	+85	0.0687	+23.5	+88	0.0684	+28.1	+90
0.36	0.0779	+12.7	+80	0.0768	+18.5	+83	0.0757	+23.7	+86	0.0749	+28.2	+89
0.32	0.0871	+12.9	+76	0.0857	+18.7	+80	0.0841	+23.9	+84	0.0828	+28.4	+88
0.28	0.0985	+13.1	+73	0.0966	+19.0	+77	0.0945	+24.1	+82	0.0926	+28.6	+86
0.24	0.1128	+13.3	+69	0.1103	+19.3	+73	0.1075	+24.4	+79	0.1049	+28.8	+84
0.20	0.1309	+13.6	+65	0.1278	+19.6	+70	0.1241	+24.8	+76	0.1205	+29.1	+82
0.16	0.1543	+13.9	+61	0.1503	+20.0	+66	0.1455	+25.2	+72	0.1408	+29.5	+79
0.12	0.1848	+14.3	+57	0.1797	+20.4	+62	0.1735	+25.6	+69	0.1672	+29.8	+76
0.08	0.2232	+14.7	+53	0.2166	+20.9	+58	0.2086	+26.1	+65	0.2003	+30.3	+73
0.04	0.2587	+15.1	+49	0.2507	+21.4	+55	0.2409	+26.6	+62	0.2306	+30.7	+70
0	0.2541	+15.4	+46	0.2457	+21.7	+52	0.2355	+26.9	+59	0.2246	+31.0	+68

TABLE 5 (continued)

μ	$\mu_o = 0.80; \varphi = 60^\circ$			$\mu_o = 0.80; \varphi = 70^\circ$			$\mu_o = 0.80; \varphi = 80^\circ$			$\mu_o = 0.80; \varphi = 90^\circ$		
	I_1+I_r	χ°	δ	I_1+I_r	χ	δ	I_1+I_r	χ°	δ	I_1+I_r	χ	δ
0	0.2144	-34.0	+76	0.2060	-36.1	+84	0.2006	-37.3	+89	0.1987	-37.7	+91
0.04	0.2283	-34.7	+73	0.2186	-36.6	+81	0.2118	-37.7	+87	0.2086	-37.9	+90
0.08	0.2057	-35.2	+70	0.1961	-37.0	+79	0.1890	-37.9	+86	0.1851	-38.0	+90
0.12	0.1780	-35.8	+67	0.1690	-37.4	+76	0.1621	-38.2	+84	0.1579	-38.1	+89
0.16	0.1553	-36.4	+64	0.1470	-37.9	+73	0.1404	-38.5	+82	0.1359	-38.2	+88
0.20	0.1377	-37.1	+61	0.1299	-38.4	+71	0.1235	-38.8	+80	0.1190	-38.4	+86
0.24	0.1239	-37.8	+57	0.1166	-39.0	+68	0.1105	-39.2	+77	0.1059	-38.6	+85
0.28	0.1130	-38.7	+54	0.1061	-39.6	+65	0.1002	-39.7	+74	0.0956	-38.9	+83
0.32	0.1042	-39.6	+51	0.0976	-40.3	+62	0.0919	-40.2	+72	0.0874	-39.3	+80
0.36	0.0969	-40.6	+48	0.0907	-41.1	+59	0.0852	-40.8	+69	0.0807	-39.7	+78
0.40	0.0909	-41.7	+45	0.0849	-42.0	+55	0.0796	-41.4	+66	0.0752	-40.1	+75
0.44	0.0857	-42.9	+42	0.0801	-43.0	+52	0.0749	-42.2	+63	0.0706	-40.6	+72
0.48	0.0813	-44.3	+39	0.0760	-44.1	+49	0.0710	-43.0	+59	0.0668	-41.2	+69
0.52	0.0775	+44.1	-36	0.0724	+44.7	-46	0.0677	-44.0	+56	0.0635	-41.9	+66
0.56	0.0742	+42.4	-34	0.0693	+43.3	-43	0.0648	+45.0	-53	0.0608	-42.7	+63
0.60	0.0712	+40.5	-31	0.0666	+41.8	-40	0.0623	+43.8	-49	0.0584	-43.6	+59
0.64	0.0685	+38.3	-29	0.0642	+40.0	-37	0.0601	+42.4	-46	0.0564	-44.7	+55
0.68	0.0661	+35.7	-26	0.0621	+38.0	-34	0.0582	+40.8	-43	0.0546	+44.1	-52
0.72	0.0639	+32.8	-24	0.0601	+35.7	-31	0.0565	+39.0	-40	0.0531	+42.7	-48
0.76	0.0618	+29.4	-22	0.0583	+32.9	-29	0.0550	+36.8	-36	0.0518	+41.0	-44
0.80	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.84	0.0579	+20.4	-18	0.0551	+25.8	-23	0.0524	+31.1	-30	0.0498	+36.4	-36
0.88	0.0560	+14.1	-16	0.0537	+20.6	-21	0.0513	+26.9	-27	0.0490	+33.1	-32
0.92	0.0540	+ 5.9	-15	0.0521	+13.9	-19	0.0502	+21.4	-24	0.0483	+28.6	-28
0.96	0.0517	- 5.7	-15	0.0504	+ 4.0	-18	0.0491	+13.1	-21	0.0477	+21.6	-24
1.00	0.0472	-30.6	-20	0.0472	-20.5	-20	0.0472	-10.3	-20	0.0472	0	-20
0.96	0.0441	+44.7	+34	0.0452	-37.6	-31	0.0464	-29.7	-28	0.0477	+21.6	-24
0.92	0.0434	+40.9	+42	0.0449	-42.4	-38	0.0465	-35.5	-33	0.0483	+28.6	-28
0.88	0.0432	+38.6	+49	0.0449	+44.7	+44	0.0469	-39.2	-38	0.0490	+33.1	-32
0.84	0.0434	+36.9	+56	0.0452	+42.6	+50	0.0474	-41.8	-43	0.0498	+36.4	-36
0.80	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.76	0.0445	+34.9	+67	0.0465	+39.9	+60	0.0490	+44.6	+52	0.0518	+41.0	-44
0.72	0.0455	+34.1	+71	0.0476	+38.9	+64	0.0501	+43.3	+56	0.0531	+42.7	-48
0.68	0.0469	+33.6	+75	0.0489	+38.1	+69	0.0515	+42.2	+61	0.0546	+44.1	-52
0.64	0.0485	+33.1	+79	0.0505	+37.4	+72	0.0532	+41.3	+64	0.0564	-44.7	+55
0.60	0.0505	+32.8	+82	0.0525	+36.9	+76	0.0551	+40.5	+68	0.0584	-43.6	+59
0.56	0.0529	+32.5	+85	0.0548	+36.4	+79	0.0574	+39.8	+72	0.0608	-42.7	+63
0.52	0.0558	+32.3	+87	0.0576	+36.1	+82	0.0601	+39.3	+75	0.0635	-41.9	+66
0.48	0.0593	+32.2	+89	0.0609	+35.8	+84	0.0634	+38.8	+78	0.0668	-41.2	+69
0.44	0.0635	+32.1	+90	0.0649	+35.6	+86	0.0672	+38.4	+80	0.0706	-40.6	+72
0.40	0.0686	+32.1	+90	0.0697	+35.4	+88	0.0719	+38.1	+83	0.0752	-40.1	+75
0.36	0.0747	+32.1	+90	0.0755	+35.3	+89	0.0774	+37.8	+85	0.0807	-39.7	+78
0.32	0.0822	+32.2	+90	0.0826	+35.2	+90	0.0843	+37.6	+87	0.0874	-39.3	+80
0.28	0.0914	+32.3	+89	0.0913	+35.2	+90	0.0927	+37.4	+88	0.0956	-38.9	+83
0.24	0.1030	+32.4	+88	0.1023	+35.2	+90	0.1032	+37.3	+89	0.1059	-38.6	+85
0.20	0.1177	+32.6	+87	0.1162	+35.3	+90	0.1166	+37.2	+90	0.1190	-38.4	+86
0.16	0.1368	+32.9	+85	0.1343	+35.4	+89	0.1339	+37.2	+90	0.1359	-38.2	+88
0.12	0.1617	+33.1	+83	0.1579	+35.6	+88	0.1565	+37.2	+90	0.1579	-38.1	+89
0.08	0.1929	+33.5	+81	0.1873	+35.8	+87	0.1846	+37.3	+90	0.1851	-38.0	+90
0.04	0.2211	+33.8	+78	0.2136	+36.0	+85	0.2092	+37.4	+89	0.2086	-37.9	+90
0	0.2144	+34.0	+76	0.2060	+36.1	+84	0.2006	+37.3	+89	0.1987	-37.7	+91

TABLE 5 (continued)

μ	$\mu_0 = 0.94$; $\varphi = 0°$		$\mu_0 = 0.94$; $\varphi = 10°$			$\mu_0 = 0.94$; $\varphi = 20°$			$\mu_0 = 0.94$; $\varphi = 30°$		
	I_1+I_r	δ	I_1+I_r	$\chi°$	δ	I_1+I_r	$\chi°$	δ	I_1+I_r	$\chi°$	δ
0	0.2198	+73	0.2192	- 3.7	+74	0.2174	- 7.3	+75	0.2146	-10.6	+78
0.04	0.2330	+69	0.2322	- 3.8	+69	0.2302	- 7.4	+71	0.2270	-10.7	+74
0.08	0.2106	+65	0.2099	- 3.9	+65	0.2078	- 7.6	+67	0.2047	-10.9	+70
0.12	0.1832	+61	0.1825	- 3.9	+61	0.1807	- 7.7	+63	0.1777	-11.1	+66
0.16	0.1608	+57	0.1602	- 4.0	+57	0.1585	- 7.9	+59	0.1558	-11.3	+62
0.20	0.1435	+53	0.1430	- 4.1	+53	0.1414	- 8.1	+55	0.1388	-11.6	+58
0.24	0.1300	+49	0.1295	- 4.3	+49	0.1280	- 8.3	+51	0.1257	-11.9	+54
0.28	0.1194	+45	0.1189	- 4.4	+45	0.1175	- 8.5	+47	0.1153	-12.2	+50
0.32	0.1108	+41	0.1104	- 4.5	+41	0.1091	- 8.8	+43	0.1069	-12.6	+46
0.36	0.1038	+37	0.1034	- 4.7	+37	0.1021	- 9.1	+39	0.1001	-13.0	+42
0.40	0.0980	+33	0.0976	- 4.9	+34	0.0964	- 9.5	+35	0.0945	-13.5	+38
0.44	0.0931	+29	0.0927	- 5.1	+30	0.0916	- 9.9	+32	0.0898	-14.0	+35
0.48	0.0889	+26	0.0886	- 5.4	+26	0.0875	-10.4	+28	0.0858	-14.7	+31
0.52	0.0853	+22	0.0850	- 5.7	+23	0.0840	-11.0	+25	0.0823	-15.4	+27
0.56	0.0822	+19	0.0819	- 6.1	+20	0.0809	-11.7	+21	0.0793	-16.3	+24
0.60	0.0794	+16	0.0791	- 6.6	+17	0.0782	-12.5	+18	0.0767	-17.3	+21
0.64	0.0769	+13	0.0766	- 7.2	+14	0.0757	-13.5	+15	0.0744	-18.6	+18
0.68	0.0746	+11	0.0743	- 7.9	+11	0.0735	-14.9	+13	0.0723	-20.2	+15
0.72	0.0725	+ 8	0.0723	- 9.0	+ 9	0.0715	-16.6	+10	0.0703	-22.3	+12
0.76	0.0705	+ 6	0.0703	-10.4	+ 6	0.0696	-19.0	+ 8	0.0685	-25.0	+10
0.80	0.0686	+ 4	0.0684	-12.7	+ 4	0.0678	-22.4	+ 6	0.0668	-28.7	+ 7
0.84	0.0667	+ 2	0.0666	-16.6	+ 3	0.0660	-27.7	+ 4	0.0652	-34.1	+ 5
0.88	0.0648	+ 1	0.0647	-24.7	+ 1	0.0642	-37.0	+ 2	0.0635	-42.6	+ 3
0.92	0.0627	0	0.0626	-43.2	0	0.0622	+36.0	- 1	0.0616	+33.1	- 2
0.96	0.0601	0	0.0600	+22.8	0	0.0598	-24.1	0	0.0594	- 2.3	- 1
1.00	0.0546	+ 6	0.0546	+ 9.1	+ 6	0.0546	+18.3	+ 6	0.0546	+27.6	+ 6
0.96	0.0498	+21	0.0499	+ 5.5	+21	0.0501	+11.0	+20	0.0505	+16.6	+20
0.92	0.0484	+30	0.0485	+ 4.9	+29	0.0488	+ 9.7	+29	0.0492	+14.5	+28
0.88	0.0475	+38	0.0476	+ 4.5	+37	0.0479	+ 8.9	+36	0.0485	+13.3	+35
0.84	0.0471	+45	0.0472	+ 4.2	+45	0.0475	+ 8.4	+44	0.0481	+12.5	+42
0.80	0.0470	+52	0.0471	+ 4.0	+52	0.0475	+ 8.0	+50	0.0481	+11.9	+49
0.76	0.0472	+58	0.0473	+ 3.9	+58	0.0477	+ 7.7	+57	0.0483	+11.5	+55
0.72	0.0477	+65	0.0478	+ 3.8	+64	0.0482	+ 7.5	+63	0.0488	+11.1	+61
0.68	0.0486	+70	0.0487	+ 3.7	+70	0.0491	+ 7.3	+68	0.0497	+10.9	+66
0.64	0.0498	+75	0.0499	+ 3.6	+75	0.0503	+ 7.2	+74	0.0509	+10.6	+72
0.60	0.0514	+80	0.0515	+ 3.6	+79	0.0518	+ 7.1	+78	0.0525	+10.5	+76
0.56	0.0534	+84	0.0535	+ 3.5	+83	0.0539	+ 7.0	+82	0.0544	+10.3	+80
0.52	0.0560	+87	0.0561	+ 3.5	+86	0.0564	+ 6.9	+86	0.0569	+10.2	+84
0.48	0.0591	+89	0.0592	+ 3.5	+89	0.0595	+ 6.9	+88	0.0600	+10.1	+87
0.44	0.0630	+91	0.0631	+ 3.5	+91	0.0633	+ 6.8	+90	0.0637	+10.1	+89
0.40	0.0678	+92	0.0679	+ 3.5	+92	0.0680	+ 6.8	+92	0.0684	+10.0	+91
0.36	0.0737	+93	0.0737	+ 3.5	+93	0.0738	+ 6.8	+92	0.0740	+10.0	+92
0.32	0.0810	+92	0.0810	+ 3.5	+92	0.0810	+ 6.8	+93	0.0811	+10.0	+93
0.28	0.0901	+92	0.0900	+ 3.5	+92	0.0900	+ 6.8	+92	0.0899	+10.0	+92
0.24	0.1016	+90	0.1015	+ 3.5	+90	0.1013	+ 6.9	+91	0.1010	+10.0	+92
0.20	0.1164	+88	0.1162	+ 3.5	+89	0.1159	+ 6.9	+89	0.1153	+10.1	+90
0.16	0.1357	+86	0.1355	+ 3.5	+86	0.1349	+ 7.0	+87	0.1340	+10.2	+88
0.12	0.1610	+83	0.1607	+ 3.6	+83	0.1598	+ 7.0	+84	0.1585	+10.2	+86
0.08	0.1931	+80	0.1927	+ 3.6	+80	0.1914	+ 7.1	+82	0.1896	+10.3	+84
0.04	0.2230	+76	0.2225	+ 3.7	+77	0.2208	+ 7.2	+78	0.2184	+10.5	+80
0	0.2198	+73	0.2192	+ 3.7	+74	0.2174	+ 7.3	+75	0.2146	+10.6	+78

TABLE 5 (continued)

μ	$\mu_0 = 0.94$; $\varphi = 40^\circ$			$\mu_0 = 0.94$; $\varphi = 50^\circ$			$\mu_0 = 0.94$; $\varphi = 60^\circ$			$\mu_0 = 0.94$; $\varphi = 70^\circ$		
	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ	I_1+I_r	χ°	δ
0	0.2112	-13.4	+81	0.2076	-15.9	+84	0.2042	-17.8	+87	0.2014	-19.2	+90
0.04	0.2230	-13.7	+77	0.2187	-16.1	+81	0.2145	-18.0	+85	0.2109	-19.4	+88
0.08	0.2008	-13.9	+74	0.1965	-16.3	+78	0.1922	-18.2	+82	0.1883	-19.5	+86
0.12	0.1741	-14.1	+70	0.1700	-16.5	+74	0.1658	-18.4	+79	0.1620	-19.7	+83
0.16	0.1524	-14.3	+66	0.1485	-16.8	+71	0.1445	-18.6	+76	0.1408	-19.9	+80
0.20	0.1356	-14.6	+62	0.1320	-17.1	+67	0.1282	-18.9	+72	0.1245	-20.1	+77
0.24	0.1226	-15.0	+58	0.1192	-17.4	+63	0.1155	-19.2	+68	0.1120	-20.4	+74
0.28	0.1124	-15.3	+54	0.1091	-17.8	+59	0.1056	-19.6	+65	0.1021	-20.7	+70
0.32	0.1042	-15.7	+50	0.1011	-18.2	+55	0.0977	-20.0	+61	0.0943	-21.0	+67
0.36	0.0975	-16.2	+46	0.0945	-18.7	+51	0.0913	-20.4	+57	0.0880	-21.5	+63
0.40	0.0920	-16.7	+42	0.0891	-19.2	+47	0.0860	-20.9	+53	0.0828	-21.9	+59
0.44	0.0874	-17.4	+38	0.0847	-19.8	+43	0.0817	-21.5	+49	0.0786	-22.5	+55
0.48	0.0835	-18.1	+35	0.0809	-20.6	+39	0.0780	-22.2	+45	0.0750	-23.1	+50
0.52	0.0802	-18.9	+31	0.0777	-21.4	+35	0.0749	-23.0	+41	0.0720	-23.8	+46
0.56	0.0773	-19.8	+27	0.0749	-22.4	+32	0.0722	-23.9	+37	0.0695	-24.6	+42
0.60	0.0748	-21.0	+24	0.0725	-23.5	+28	0.0700	-25.0	+33	0.0673	-25.6	+38
0.64	0.0726	-22.4	+21	0.0704	-24.8	+25	0.0680	-26.2	+29	0.0655	-26.7	+34
0.68	0.0706	-24.0	+18	0.0685	-26.5	+21	0.0663	-27.7	+26	0.0639	-28.0	+30
0.72	0.0688	-26.2	+15	0.0669	-28.5	+18	0.0648	-29.5	+22	0.0625	-29.7	+26
0.76	0.0671	-28.8	+12	0.0654	-31.0	+15	0.0634	-31.8	+19	0.0613	-31.6	+23
0.80	0.0655	-32.4	+10	0.0639	-34.2	+12	0.0622	-34.7	+16	0.0603	-34.2	+19
0.84	0.0640	-37.4	+ 7	0.0626	-38.7	+10	0.0610	-38.6	+13	0.0593	-37.5	+16
0.88	0.0625	-44.8	+ 5	0.0613	+45.0	- 7	0.0599	-44.0	+10	0.0584	-42.1	+12
0.92	0.0608	+33.2	- 3	0.0599	+35.0	- 5	0.0587	+37.7	- 7	0.0575	+40.9	- 9
0.96	0.0588	+ 8.3	- 2	0.0581	+16.0	- 3	0.0574	+22.6	- 5	0.0565	+28.7	- 6
1.00	0.0546	+37.2	+ 6	0.0546	-42.9	- 6	0.0546	-32.6	- 6	0.0546	-22.0	- 5
0.96	0.0509	+22.1	+18	0.0515	+27.6	+17	0.0522	+33.1	+15	0.0530	+38.6	+14
0.92	0.0499	+19.3	+26	0.0507	+24.0	+24	0.0516	+28.6	+22	0.0527	+33.0	+19
0.88	0.0492	+17.6	+33	0.0501	+21.8	+31	0.0512	+25.9	+28	0.0525	+29.7	+25
0.84	0.0489	+16.5	+40	0.0499	+20.4	+37	0.0512	+24.0	+34	0.0526	+27.5	+30
0.80	0.0489	+15.7	+46	0.0500	+19.3	+43	0.0513	+22.7	+39	0.0529	+25.8	+36
0.76	0.0492	+15.1	+52	0.0503	+18.5	+49	0.0517	+21.7	+45	0.0533	+24.5	+41
0.72	0.0498	+14.6	+58	0.0509	+17.9	+55	0.0524	+20.8	+50	0.0540	+23.5	+46
0.68	0.0506	+14.2	+64	0.0518	+17.3	+60	0.0533	+20.2	+56	0.0550	+22.7	+51
0.64	0.0518	+13.9	+69	0.0530	+16.9	+65	0.0545	+19.6	+61	0.0562	+22.0	+56
0.60	0.0533	+13.6	+74	0.0545	+16.6	+70	0.0560	+19.2	+66	0.0578	+21.4	+61
0.56	0.0553	+13.4	+78	0.0564	+16.3	+74	0.0579	+18.8	+70	0.0597	+21.0	+65
0.52	0.0577	+13.3	+82	0.0588	+16.1	+78	0.0602	+18.5	+74	0.0620	+20.6	+70
0.48	0.0607	+13.1	+85	0.0617	+15.9	+82	0.0631	+18.2	+78	0.0648	+20.2	+74
0.44	0.0644	+13.0	+88	0.0653	+15.7	+85	0.0666	+18.0	+82	0.0683	+20.0	+78
0.40	0.0689	+13.0	+90	0.0697	+15.6	+88	0.0709	+17.9	+85	0.0725	+19.7	+81
0.36	0.0745	+12.9	+91	0.0751	+15.5	+90	0.0762	+17.7	+87	0.0777	+19.5	+84
0.32	0.0813	+12.9	+92	0.0819	+15.5	+91	0.0828	+17.6	+89	0.0841	+19.4	+87
0.28	0.0899	+12.9	+93	0.0903	+15.4	+92	0.0909	+17.6	+91	0.0921	+19.2	+89
0.24	0.1008	+12.9	+92	0.1009	+15.4	+92	0.1013	+17.5	+92	0.1022	+19.2	+90
0.20	0.1148	+13.0	+91	0.1145	+15.5	+92	0.1146	+17.5	+92	0.1152	+19.1	+92
0.16	0.1331	+13.0	+90	0.1323	+15.5	+91	0.1320	+17.5	+92	0.1322	+19.1	+92
0.12	0.1571	+13.1	+88	0.1557	+15.6	+90	0.1547	+17.6	+92	0.1544	+19.1	+92
0.08	0.1874	+13.2	+86	0.1852	+15.7	+88	0.1834	+17.7	+90	0.1823	+19.1	+92
0.04	0.2154	+13.3	+83	0.2123	+15.8	+86	0.2095	+17.7	+89	0.2075	+19.2	+91
0	0.2112	+13.4	+81	0.2076	+15.9	+84	0.2042	+17.8	+87	0.2014	+19.2	+90

TABLE 5 (continued)

μ	$\mu_o = 0.94$; $\varphi = 80°$			$\mu_o = 0.94$; $\varphi = 90°$			$\mu_o = 1.00$	
	I_1+I_r	$\chi°$	δ	I_1+I_r	$\chi°$	δ	I_1+I_r	δ
0	0.1996	-20.0	+92	0.1990	-20.3	+93	0.1984	+94
0.04	0.2082	-20.2	+90	0.2067	-20.4	+92	0.2052	+93
0.08	0.1852	-20.2	+89	0.1831	-20.4	+91	0.1817	+93
0.12	0.1587	-20.4	+87	0.1563	-20.5	+90	0.1552	+91
0.16	0.1375	-20.5	+85	0.1349	-20.6	+88	0.1341	+89
0.20	0.1212	-20.7	+82	0.1185	-20.7	+86	0.1181	+87
0.24	0.1087	-20.9	+79	0.1059	-20.9	+84	0.1057	+84
0.28	0.0989	-21.2	+76	0.0961	-21.1	+81	0.0961	+81
0.32	0.0911	-21.5	+72	0.0883	-21.3	+78	0.0886	+77
0.36	0.0849	-21.8	+69	0.0821	-21.6	+74	0.0826	+73
0.40	0.0798	-22.2	+65	0.0770	-22.0	+71	0.0777	+69
0.44	0.0756	-22.7	+61	0.0728	-22.3	+67	0.0737	+65
0.48	0.0721	-23.2	+57	0.0694	-22.8	+63	0.0705	+60
0.52	0.0692	-23.9	+52	0.0665	-23.3	+58	0.0678	+55
0.56	0.0668	-24.6	+48	0.0641	-23.9	+54	0.0657	+50
0.60	0.0647	-25.4	+44	0.0622	-24.6	+50	0.0639	+45
0.64	0.0630	-26.4	+40	0.0605	-25.5	+45	0.0624	+41
0.68	0.0615	-27.6	+35	0.0592	-26.5	+41	0.0613	+36
0.72	0.0603	-29.0	+31	0.0580	-27.7	+36	0.0603	+31
0.76	0.0592	-30.7	+27	0.0571	-29.1	+32	0.0596	+26
0.80	0.0583	-32.9	+23	0.0564	-31.0	+27	0.0590	+22
0.84	0.0576	-35.7	+19	0.0558	-33.4	+23	0.0586	+17
0.88	0.0569	-39.6	+15	0.0554	-36.7	+19	0.0584	+13
0.92	0.0563	+44.6	-12	0.0550	-41.5	+14	0.0582	+ 9
0.96	0.0556	+34.5	- 8	0.0547	+40.2	-10	0.0581	+ 4
1.00	0.0546	-11.1	- 5	0.0546	0	- 5	0	0
0.96	0.0538	+44.2	+12	0.0547	+40.2	-10	0.0581	+ 4
0.92	0.0538	+37.4	+17	0.0550	-41.5	+14	0.0582	+ 9
0.88	0.0539	+33.3	+22	0.0554	-36.7	+19	0.0584	+13
0.84	0.0541	+30.6	+27	0.0558	-33.4	+23	0.0586	+17
0.80	0.0546	+28.6	+31	0.0564	-31.0	+27	0.0590	+22
0.76	0.0552	+27.0	+36	0.0571	-29.1	+32	0.0596	+26
0.72	0.0560	+25.8	+41	0.0580	-27.7	+36	0.0603	+31
0.68	0.0570	+24.8	+46	0.0592	-26.5	+41	0.0613	+36
0.64	0.0583	+24.0	+51	0.0605	-25.5	+45	0.0624	+41
0.60	0.0598	+23.3	+55	0.0622	-24.6	+50	0.0639	+45
0.56	0.0618	+22.7	+60	0.0641	-23.9	+54	0.0657	+50
0.52	0.0641	+22.2	+64	0.0665	-23.3	+58	0.0678	+55
0.48	0.0669	+21.8	+68	0.0694	-22.8	+63	0.0705	+60
0.44	0.0704	+21.4	+72	0.0728	-22.3	+67	0.0737	+65
0.40	0.0745	+21.1	+76	0.0770	-22.0	+71	0.0777	+69
0.36	0.0796	+20.8	+80	0.0821	-21.6	+74	0.0826	+73
0.32	0.0860	+20.6	+83	0.0883	-21.3	+78	0.0886	+77
0.28	0.0938	+20.4	+85	0.0961	-21.1	+81	0.0961	+81
0.24	0.1038	+20.3	+88	0.1059	-20.9	+84	0.1057	+84
0.20	0.1165	+20.2	+90	0.1185	-20.7	+86	0.1181	+87
0.16	0.1331	+20.1	+91	0.1349	-20.6	+88	0.1341	+89
0.12	0.1549	+20.1	+92	0.1563	-20.5	+90	0.1552	+91
0.08	0.1822	+20.0	+92	0.1831	-20.4	+91	0.1817	+93
0.04	0.2065	+20.1	+92	0.2067	-20.4	+92	0.2052	+93
0	0.1996	+20.0	+92	0.1990	-20.3	+93	0.1984	+94

TABLE 6

THE ILLUMINATION AND POLARIZATION OF THE SKY FOR VARIOUS ZENITH DISTANCES

OF THE SUN AND FOR AN ATMOSPHERE OF OPTICAL THICKNESS $\tau_1 = 0.10$

μ	$\mu_0 = 0;\ \varphi = 0^\circ$		$\mu_0 = 0;\ \varphi = 90^\circ$		$\mu_0 = 0.16;\ \varphi = 0^\circ$		$\mu_0 = 0.16;\ \varphi = 90^\circ$			$\mu_0 = 0.50;\ \varphi = 0^\circ$	
	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	χ°	δ	I_1+I_r	δ
0	..	..	..	..	0.2405	- 3	0.1322	+8.7	-92	0.3156	+10
0.04	1.2394	-10	0.7843	-85	0.2715	- 4	0.1487	+8.7	-93	0.3189	+ 7
0.08	1.7316	- 6	0.9652	-91	0.2229	- 5	0.1213	+8.7	-93	0.2564	+ 6
0.12	1.6675	- 4	0.9184	-92	0.1803	- 5	0.0978	+8.6	-93	0.2076	+ 4
0.16	1.5032	- 4	0.8264	-93	..	..	..	..	..	0.1736	+ 2
0.20	1.3389	- 3	0.7379	-93	0.1273	- 5	0.0689	+8.6	-93	0.1492	+ 1
0.24	1.1941	- 2	0.6617	-93	0.1104	- 4	0.0598	+8.5	-93	0.1308	0
0.28	1.0699	0	0.5974	-93	0.0971	- 4	0.0528	+8.4	-93	0.1165	- 1
0.32	0.9635	+ 1	0.5432	-93	0.0864	- 3	0.0472	+8.3	-93	0.1050	- 2
0.36	0.8718	+ 2	0.4972	-93	0.0775	- 2	0.0426	+8.2	-93	0.0956	- 2
0.40	0.7920	+ 4	0.4578	-94	0.0701	- 1	0.0389	+8.1	-93	0.0876	- 3
0.44	0.7219	+ 6	0.4238	-94	0.0637	0	0.0357	+8.0	-92	0.0808	- 3
0.48	0.6597	+ 8	0.3941	-94	0.0581	+ 1	0.0329	+7.8	-92	0.0748	- 3
0.52	0.6040	+11	0.3680	-94	0.0532	+ 3	0.0306	+7.6	-92	0.0696	- 3
0.56	0.5538	+14	0.3449	-94	0.0488	+ 5	0.0285	+7.4	-92	0.0649	- 3
0.60	0.5082	+17	0.3243	-94	0.0448	+ 7	0.0267	+7.2	-92	0.0606	- 2
0.64	0.4664	+21	0.3057	-94	0.0412	+10	0.0251	+7.0	-91	0.0566	- 1
0.68	0.4279	+25	0.2890	-94	0.0379	+13	0.0236	+6.7	-91	0.0529	0
0.72	0.3923	+30	0.2738	-94	0.0348	+17	0.0223	+6.4	-91	0.0494	+ 1
0.76	0.3591	+35	0.2600	-94	0.0319	+22	0.0212	+6.0	-91	0.0461	+ 3
0.80	0.3280	+42	0.2472	-94	0.0291	+27	0.0201	+5.6	-90	0.0429	+ 6
0.84	0.2988	+49	0.2356	-94	0.0265	+33	0.0191	+5.1	-90	0.0397	+ 9
0.88	0.2713	+57	0.2248	-94	0.0240	+41	0.0182	+4.5	-90	0.0366	+13
0.92	0.2452	+67	0.2148	-94	0.0216	+50	0.0174	+3.7	-89	0.0333	+19
0.96	0.2204	+79	0.2054	-93	0.0191	+63	0.0166	+2.7	-89	0.0297	+29
1.00	0.1968	+93	0.1968	-93	0.0159	+88	0.0159	0	-88	0.0235	+56
0.96	0.2204	+79	0.2054	-93	0.0164	+89	0.0166	+2.7	-89	0.0208	+84
0.92	0.2452	+67	0.2148	-94	0.0179	+81	0.0174	+3.7	-89	0.0209	+90
0.88	0.2713	+57	0.2248	-94	0.0195	+73	0.0182	+4.5	-90	0.0216	+92
0.84	0.2988	+49	0.2356	-94	0.0214	+65	0.0191	+5.1	-90	0.0226	+91
0.80	0.3280	+42	0.2472	-94	0.0235	+57	0.0201	+5.6	-90	0.0240	+89
0.76	0.3591	+35	0.2600	-94	0.0258	+50	0.0212	+6.0	-91	0.0257	+85
0.72	0.3923	+30	0.2738	-94	0.0283	+44	0.0223	+6.4	-91	0.0278	+80
0.68	0.4279	+25	0.2890	-94	0.0311	+38	0.0236	+6.7	-91	0.0301	+75
0.64	0.4664	+21	0.3057	-94	0.0341	+33	0.0251	+7.0	-91	0.0328	+70
0.60	0.5082	+17	0.3243	-94	0.0375	+28	0.0267	+7.2	-92	0.0359	+65
0.56	0.5538	+14	0.3449	-94	0.0412	+24	0.0285	+7.4	-92	0.0395	+60
0.52	0.6040	+11	0.3680	-94	0.0455	+21	0.0306	+7.6	-92	0.0437	+54
0.48	0.6597	+ 8	0.3941	-94	0.0502	+17	0.0329	+7.8	-92	0.0484	+50
0.44	0.7219	+ 6	0.4238	-94	0.0557	+14	0.0357	+8.0	-92	0.0540	+45
0.40	0.7920	+ 4	0.4578	-94	0.0620	+11	0.0389	+8.1	-93	0.0606	+41
0.36	0.8718	+ 2	0.4972	-93	0.0695	+ 9	0.0426	+8.2	-93	0.0684	+36
0.32	0.9635	+ 1	0.5432	-93	0.0783	+ 7	0.0472	+8.3	-93	0.0779	+33
0.28	1.0699	0	0.5974	-93	0.0891	+ 5	0.0528	+8.4	-93	0.0896	+29
0.24	1.1941	- 2	0.6617	-93	0.1026	+ 3	0.0598	+8.5	-93	0.1044	+25
0.20	1.3389	- 3	0.7379	-93	0.1197	+ 1	0.0689	+8.6	-93	0.1235	+22
0.16	1.5032	- 4	0.8264	-93	..	..	..	..	..	0.1493	+19
0.12	1.6675	- 4	0.9184	-92	0.1738	- 1	0.0978	+8.6	-93	0.1854	+16
0.08	1.7316	- 6	0.9652	-91	0.2175	- 2	0.1213	+8.7	-93	0.2377	+14
0.04	1.2394	-10	0.7843	-85	0.2682	- 3	0.1487	+8.7	-93	0.3071	+12
0	..	..	..	..	0.2405	- 3	0.1322	+8.7	-92	0.3156	+10

TABLE 6 (continued)

μ	$\mu_o = 0.50$; $\varphi = 90°$			$\mu_o = 0.86$; $\varphi = 0°$		$\mu_o = 0.86$; $\varphi = 90°$			$\mu_o = 1.00$	
	I_1+I_r	$\chi°$	δ	I_1+I_r	δ	I_1+I_r	$\chi°$	δ	I_1+I_r	δ
0	0.1903	+29.0	-93	0.2450	+54	0.1978	-31.2	+94	0.1968	+96
0.04	0.1902	+28.8	-92	0.2434	+50	0.1920	-31.3	+93	0.1893	+96
0.08	0.1504	+28.8	-92	0.1964	+46	0.1512	-31.3	+93	0.1491	+95
0.12	0.1200	+28.7	-92	0.1605	+42	0.1209	-31.4	+92	0.1194	+93
0.16	0.0991	+28.6	-91	0.1358	+38	0.1002	-31.6	+90	0.0993	+91
0.20	0.0842	+28.4	-91	0.1182	+34	0.0857	-31.8	+88	0.0853	+89
0.24	0.0732	+28.2	-90	0.1052	+31	0.0752	-32.0	+86	0.0751	+86
0.28	0.0648	+28.0	-89	0.0952	+28	0.0671	-32.3	+84	0.0674	+82
0.32	0.0581	+27.7	-88	0.0874	+24	0.0609	-32.6	+81	0.0616	+79
0.36	0.0528	+27.4	-87	0.0810	+21	0.0560	-33.0	+78	0.0570	+74
0.40	0.0484	+27.1	-86	0.0757	+18	0.0520	-33.4	+75	0.0533	+70
0.44	0.0447	+26.7	-85	0.0712	+16	0.0488	-33.9	+71	0.0504	+65
0.48	0.0416	+26.2	-84	0.0674	+13	0.0461	-34.5	+68	0.0480	+61
0.52	0.0390	+25.6	-82	0.0640	+11	0.0439	-35.2	+64	0.0460	+56
0.56	0.0366	+25.1	-81	0.0611	+ 8	0.0420	-36.0	+60	0.0444	+51
0.60	0.0346	+24.4	-79	0.0584	+ 6	0.0405	-36.9	+56	0.0431	+46
0.64	0.0329	+23.6	-77	0.0560	+ 5	0.0391	-37.9	+52	0.0421	+41
0.68	0.0313	+22.7	-75	0.0538	+ 3	0.0380	-39.2	+48	0.0412	+36
0.72	0.0299	+21.7	-73	0.0517	+ 2	0.0371	-40.7	+43	0.0405	+31
0.76	0.0287	+20.6	-71	0.0497	+ 1	0.0363	-42.4	+39	0.0400	+26
0.80	0.0276	+19.2	-69	0.0477	0	0.0356	-44.5	+35	0.0396	+22
0.84	0.0266	+17.6	-66	0.0459	- 1	0.0352	+42.6	-31	0.0393	+17
0.88	0.0257	+15.6	-64	0.0437	- 1	0.0346	+39.1	-27	0.0391	+13
0.92	0.0249	+13.1	-62	0.0416	0	0.0342	+34.1	-22	0.0389	+ 8
0.96	0.0241	+ 9.5	-59	0.0390	+ 3	0.0339	+26.2	-18	0.0388	+ 4
1.00	0.0235	0	-56	0.0336	+14	0.0336	0	-14	0	0
0.96	0.0241	+ 9.5	-59	0.0296	+35	0.0339	+26.2	-18	0.0388	+ 4
0.92	0.0249	+13.1	-62	0.0284	+47	0.0342	+34.1	-22	0.0389	+ 8
0.88	0.0257	+15.6	-64	0.0279	+56	0.0346	+39.1	-27	0.0391	+13
0.84	0.0266	+17.6	-66	0.0278	+64	0.0352	+42.6	-31	0.0393	+17
0.80	0.0276	+19.2	-69	0.0278	+71	0.0356	-44.5	+35	0.0396	+22
0.76	0.0287	+20.6	-71	0.0281	+78	0.0363	-42.4	+39	0.0400	+26
0.72	0.0299	+21.7	-73	0.0288	+83	0.0371	-40.7	+43	0.0405	+31
0.68	0.0313	+22.7	-75	0.0297	+87	0.0380	-39.2	+48	0.0412	+36
0.64	0.0329	+23.6	-77	0.0309	+90	0.0391	-37.9	+52	0.0421	+41
0.60	0.0346	+24.4	-79	0.0324	+92	0.0405	-36.9	+56	0.0431	+46
0.56	0.0366	+25.1	-81	0.0343	+93	0.0420	-36.0	+60	0.0444	+51
0.52	0.0390	+25.6	-82	0.0366	+94	0.0439	-35.2	+64	0.0460	+56
0.48	0.0416	+26.2	-84	0.0394	+93	0.0461	-34.5	+68	0.0480	+61
0.44	0.0447	+26.7	-85	0.0428	+92	0.0488	-33.9	+71	0.0504	+65
0.40	0.0484	+27.1	-86	0.0470	+90	0.0520	-33.4	+75	0.0533	+70
0.36	0.0528	+27.4	-87	0.0522	+88	0.0560	-33.0	+78	0.0570	+74
0.32	0.0581	+27.7	-88	0.0587	+85	0.0609	-32.6	+81	0.0616	+79
0.28	0.0648	+28.0	-89	0.0668	+82	0.0671	-32.3	+84	0.0674	+82
0.24	0.0732	+28.2	-90	0.0772	+78	0.0752	-32.0	+86	0.0751	+86
0.20	0.0842	+28.4	-91	0.0911	+75	0.0857	-31.8	+88	0.0853	+89
0.16	0.0991	+28.6	-91	0.1100	+71	0.1002	-31.6	+90	0.0993	+91
0.12	0.1200	+28.7	-92	0.1368	+66	0.1209	-31.4	+92	0.1194	+93
0.08	0.1504	+28.8	-92	0.1765	+62	0.1512	-31.3	+93	0.1491	+95
0.04	0.1902	+28.8	-92	0.2307	+58	0.1920	-31.3	+93	0.1893	+96
0	0.1903	+29.0	-93	0.2450	+54	0.1978	-31.2	+94	0.1968	+96

TABLE 7

THE ILLUMINATION AND POLARIZATION OF THE SKY FOR VARIOUS ZENITH DISTANCES

OF THE SUN AND FOR AN ATMOSPHERE OF OPTICAL THICKNESS $\tau_1 = 0.20$

μ	$\mu_0 = 0; \varphi = 0^\circ$		$\mu_0 = 0; \varphi = 90^\circ$		$\mu_0 = 0.16; \varphi = 0^\circ$		$\mu_0 = 0.16; \varphi = 90^\circ$			$\mu_0 = 0.50; \varphi = 0^\circ$	
	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	χ°	δ	I_1+I_r	δ
0	. .	. .	. .	. .	0.1587	- 7	0.0931	+8.4	-85	0.2920	+ 8
0.04	0.4489	-18	0.3158	-68	0.2015	- 7	0.1173	+8.3	-86	0.3267	+ 5
0.08	0.7767	-11	0.4839	-79	0.2143	- 7	0.1231	+8.4	-87	0.3213	+ 3
0.12	0.9510	- 8	0.5670	-84	0.2019	- 7	0.1151	+8.4	-88	0.2941	+ 2
0.16	0.9920	- 7	0.5817	-86	. .	. .	. .	. .	. .	0.2651	0
0.20	0.9710	- 5	0.5662	-87	0.1658	- 7	0.0940	+8.3	-88	0.2393	- 1
0.24	0.9245	- 4	0.5391	-87	0.1499	- 7	0.0850	+8.3	-88	0.2173	- 2
0.28	0.8689	- 3	0.5085	-88	0.1360	- 6	0.0773	+8.2	-88	0.1986	- 3
0.32	0.8115	- 1	0.4781	-88	0.1239	- 5	0.0707	+8.1	-88	0.1826	- 3
0.36	0.7556	0	0.4491	-88	0.1134	- 5	0.0650	+8.0	-88	0.1688	- 4
0.40	0.7026	+ 2	0.4222	-88	0.1040	- 4	0.0600	+7.9	-88	0.1567	- 4
0.44	0.6527	+ 4	0.3975	-89	0.0957	- 2	0.0557	+7.8	-88	0.1460	- 5
0.48	0.6062	+ 6	0.3748	-89	0.0883	- 1	0.0519	+7.7	-88	0.1364	- 5
0.52	0.5627	+ 9	0.3541	-89	0.0815	+ 1	0.0486	+7.5	-87	0.1278	- 5
0.56	0.5220	+12	0.3351	-89	0.0754	+ 3	0.0456	+7.3	-87	0.1198	- 4
0.60	0.4840	+15	0.3176	-89	0.0697	+ 5	0.0429	+7.1	-87	0.1124	- 4
0.64	0.4482	+18	0.3015	-89	0.0645	+ 8	0.0404	+6.9	-87	0.1055	- 3
0.68	0.4146	+22	0.2867	-89	0.0596	+11	0.0382	+6.7	-87	0.0991	- 2
0.72	0.3829	+27	0.2730	-89	0.0550	+15	0.0362	+6.4	-86	0.0929	0
0.76	0.3528	+32	0.2602	-89	0.0506	+19	0.0344	+6.0	-86	0.0869	+ 2
0.80	0.3242	+39	0.2483	-89	0.0464	+24	0.0327	+5.6	-86	0.0811	+ 5
0.84	0.2970	+46	0.2373	-89	0.0424	+30	0.0311	+5.1	-85	0.0753	+ 8
0.88	0.2711	+54	0.2269	-89	0.0385	+38	0.0296	+4.5	-85	0.0695	+12
0.92	0.2462	+64	0.2172	-89	0.0347	+47	0.0283	+3.8	-84	0.0634	+18
0.96	0.2223	+75	0.2080	-89	0.0308	+59	0.0270	+2.7	-84	0.0566	+27
1.00	0.1994	+89	0.1994	-89	0.0258	+84	0.0258	0	-83	0.0450	+55
0.96	0.2223	+75	0.2080	-89	0.0267	+84	0.0270	+2.7	-84	0.0400	+80
0.92	0.2462	+64	0.2172	-89	0.0289	+76	0.0283	+3.8	-84	0.0402	+86
0.88	0.2711	+54	0.2269	-89	0.0316	+68	0.0296	+4.5	-85	0.0415	+88
0.84	0.2970	+46	0.2373	-89	0.0345	+60	0.0311	+5.1	-85	0.0435	+87
0.80	0.3242	+39	0.2483	-89	0.0377	+53	0.0327	+5.6	-86	0.0461	+84
0.76	0.3528	+32	0.2602	-89	0.0412	+46	0.0344	+6.0	-86	0.0493	+80
0.72	0.3829	+27	0.2730	-89	0.0451	+40	0.0362	+6.4	-86	0.0530	+75
0.68	0.4146	+22	0.2867	-89	0.0492	+34	0.0382	+6.7	-87	0.0573	+70
0.64	0.4482	+18	0.3015	-89	0.0537	+29	0.0404	+6.9	-87	0.0622	+65
0.60	0.4840	+15	0.3176	-89	0.0587	+25	0.0429	+7.1	-87	0.0678	+60
0.56	0.5220	+12	0.3351	-89	0.0641	+21	0.0456	+7.3	-87	0.0740	+55
0.52	0.5627	+ 9	0.3541	-89	0.0701	+17	0.0486	+7.5	-87	0.0813	+50
0.48	0.6062	+ 6	0.3748	-89	0.0767	+14	0.0519	+7.7	-88	0.0894	+45
0.44	0.6527	+ 4	0.3975	-89	0.0841	+11	0.0557	+7.8	-88	0.0988	+41
0.40	0.7026	+ 2	0.4222	-88	0.0925	+ 8	0.0600	+7.9	-88	0.1096	+37
0.36	0.7556	0	0.4491	-88	0.1020	+ 6	0.0650	+8.0	-88	0.1221	+33
0.32	0.8115	- 1	0.4781	-88	0.1128	+ 4	0.0707	+8.1	-88	0.1368	+29
0.28	0.8689	- 3	0.5085	-88	0.1253	+ 2	0.0773	+8.2	-88	0.1540	+25
0.24	0.9245	- 4	0.5391	-87	0.1397	0	0.0850	+8.3	-88	0.1747	+22
0.20	0.9710	- 5	0.5662	-87	0.1563	- 1	0.0940	+8.3	-88	0.1994	+19
0.16	0.9920	- 7	0.5817	-86	. .	. .	. .	. .	. .	0.2290	+16
0.12	0.9510	- 8	0.5670	-84	0.1949	- 4	0.1151	+8.4	-88	0.2635	+14
0.08	0.7767	-11	0.4839	-79	0.2093	- 5	0.1231	+8.4	-87	0.2986	+11
0.04	0.4489	-18	0.3158	-68	0.1992	- 6	0.1173	+8.3	-86	0.3150	+ 9
0	. .	. .	. .	. .	0.1587	- 7	0.0931	+8.4	-85	0.2920	+ 8

TABLE 7 (continued)

μ	$\mu_o = 0.50; \varphi = 90^\circ$			$\mu_o = 0.86; \varphi = 0^\circ$		$\mu_o = 0.86; \varphi = 90^\circ$			$\mu_o = 1.00$	
	I_1+I_r	χ°	δ	I_1+I_r	δ	I_1+I_r	χ°	δ	I_1+I_r	δ
0	0.1821	+28.5	-88	0.2442	+51	0.1995	-31.5	+89	0.1994	+92
0.04	0.2020	+28.2	-87	0.2671	+47	0.2136	-31.7	+88	0.2111	+91
0.08	0.1955	+28.2	-87	0.2608	+43	0.2037	-31.7	+88	0.2008	+90
0.12	0.1763	+28.1	-87	0.2394	+39	0.1830	-31.8	+87	0.1806	+89
0.16	0.1569	+28.0	-87	0.2176	+36	0.1631	-32.0	+86	0.1612	+87
0.20	0.1400	+27.9	-86	0.1985	+32	0.1462	-32.1	+84	0.1451	+85
0.24	0.1260	+27.7	-86	0.1826	+29	0.1324	-32.3	+82	0.1320	+82
0.28	0.1143	+27.5	-85	0.1694	+26	0.1212	-32.6	+80	0.1214	+79
0.32	0.1046	+27.3	-84	0.1582	+23	0.1120	-32.9	+78	0.1129	+76
0.36	0.0963	+27.0	-83	0.1488	+20	0.1044	-33.3	+75	0.1059	+72
0.40	0.0893	+26.7	-82	0.1407	+17	0.0981	-33.7	+72	0.1002	+68
0.44	0.0833	+26.3	-81	0.1336	+14	0.0928	-34.2	+69	0.0955	+64
0.48	0.0780	+25.9	-80	0.1274	+12	0.0883	-34.7	+65	0.0917	+59
0.52	0.0736	+25.3	-79	0.1218	+10	0.0845	-35.4	+62	0.0885	+55
0.56	0.0694	+24.8	-77	0.1169	+ 8	0.0813	-36.1	+58	0.0858	+50
0.60	0.0659	+24.2	-76	0.1123	+ 6	0.0786	-37.0	+54	0.0837	+45
0.64	0.0627	+23.5	-74	0.1081	+ 4	0.0762	-38.0	+50	0.0819	+40
0.68	0.0599	+22.7	-72	0.1041	+ 3	0.0743	-39.1	+46	0.0805	+36
0.72	0.0573	+21.7	-70	0.1004	+ 1	0.0726	-40.5	+42	0.0793	+31
0.76	0.0551	+20.6	-68	0.0967	0	0.0711	-42.2	+38	0.0785	+26
0.80	0.0530	+19.3	-66	0.0932	0	0.0699	-44.2	+34	0.0778	+22
0.84	0.0511	+17.8	-64	0.0896	- 1	0.0690	+43.1	-30	0.0773	+17
0.88	0.0493	+15.8	-61	0.0856	0	0.0679	+39.8	-26	0.0770	+13
0.92	0.0478	+13.3	-59	0.0816	0	0.0673	+35.0	-22	0.0768	+ 9
0.96	0.0463	+ 9.7	-56	0.0767	+ 3	0.0668	+27.3	-18	0.0768	+ 5
1.00	0.0450	0	-53	0.0663	+15	0.0663	0	-13	0	0
0.96	0.0463	+ 9.7	-56	0.0583	+35	0.0668	+27.3	-18	0.0768	+ 5
0.92	0.0478	+13.3	-59	0.0561	+46	0.0673	+35.0	-22	0.0768	+ 9
0.88	0.0493	+15.8	-61	0.0549	+55	0.0679	+39.8	-26	0.0770	+13
0.84	0.0511	+17.8	-64	0.0546	+63	0.0690	+43.1	-30	0.0773	+17
0.80	0.0530	+19.3	-66	0.0547	+70	0.0699	-44.2	+34	0.0778	+22
0.76	0.0551	+20.6	-68	0.0554	+75	0.0711	-42.2	+38	0.0785	+26
0.72	0.0573	+21.7	-70	0.0565	+80	0.0726	-40.5	+42	0.0793	+31
0.68	0.0599	+22.7	-72	0.0582	+84	0.0743	-39.1	+46	0.0805	+36
0.64	0.0627	+23.5	-74	0.0603	+87	0.0762	-38.0	+50	0.0819	+40
0.60	0.0659	+24.2	-76	0.0631	+88	0.0786	-37.0	+54	0.0837	+45
0.56	0.0694	+24.8	-77	0.0665	+89	0.0813	-36.1	+58	0.0858	+50
0.52	0.0736	+25.3	-79	0.0706	+90	0.0845	-35.4	+62	0.0885	+55
0.48	0.0780	+25.9	-80	0.0756	+89	0.0883	-34.7	+65	0.0917	+59
0.44	0.0833	+26.3	-81	0.0815	+88	0.0928	-34.2	+69	0.0955	+64
0.40	0.0893	+26.7	-82	0.0886	+86	0.0981	-33.7	+72	0.1002	+68
0.36	0.0963	+27.0	-83	0.0972	+83	0.1044	-33.3	+75	0.1059	+72
0.32	0.1046	+27.3	-84	0.1075	+81	0.1120	-32.9	+78	0.1129	+76
0.28	0.1143	+27.5	-85	0.1201	+77	0.1212	-32.6	+80	0.1214	+79
0.24	0.1260	+27.7	-86	0.1354	+74	0.1324	-32.3	+82	0.1320	+82
0.20	0.1400	+27.9	-86	0.1542	+70	0.1462	-32.1	+84	0.1451	+85
0.16	0.1569	+28.0	-87	0.1774	+66	0.1631	-32.0	+86	0.1612	+87
0.12	0.1763	+28.1	-87	0.2053	+62	0.1830	-31.8	+87	0.1806	+89
0.08	0.1955	+28.2	-87	0.2352	+58	0.2037	-31.7	+88	0.2008	+90
0.04	0.2020	+28.2	-87	0.2537	+54	0.2136	-31.7	+88	0.2111	+91
0	0.1821	+28.5	-88	0.2442	+51	0.1995	-31.5	+89	0.1994	+92

TABLE 8

THE EFFECT OF A GROUND REFLECTING ACCORDING TO LAMBERT'S LAW WITH AN ALBEDO λ_0

ON THE ILLUMINATION AND POLARIZATION OF THE SKY ($\tau_1 = 0.15$)

μ	$\varphi = 0^\circ$															
	$\mu_0 = 0$; $\lambda_0 = 0.10$		$\mu_0 = 0$; $\lambda_0 = 0.25$		$\mu_0 = 0.24$; $\lambda_0 = 0.10$		$\mu_0 = 0.24$; $\lambda_0 = 0.25$		$\mu_0 = 0.52$; $\lambda_0 = 0.10$		$\mu_0 = 0.52$; $\lambda_0 = 0.25$		$\mu_0 = 0.64$; $\lambda_0 = 0.10$	
	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ
0	..	..	..	..	0.2629	- 3	0.2801	- 3	0.3311	+ 9	0.3737	+ 8	0.3278	+18
0.04	0.6682	-15	0.7018	-14	0.3021	- 4	0.3175	- 4	0.3554	+ 7	0.3935	+ 6	0.3479	+15
0.08	1.1399	- 8	1.1680	- 8	0.2801	- 5	0.2929	- 5	0.3215	+ 5	0.3532	+ 4	0.3139	+13
0.12	1.2589	- 6	1.2821	- 6	0.2431	- 5	0.2537	- 5	0.2778	+ 3	0.3042	+ 3	0.2717	+11
0.16	1.2267	- 5	1.2464	- 5	0.2107	- 5	0.2196	- 5	0.2415	+ 2	0.2637	+ 2	0.2368	+ 9
0.20	1.1478	- 4	1.1648	- 4	0.1844	- 6	0.1921	- 5	0.2127	+ 1	0.2319	+ 1	0.2094	+ 7
0.24	1.0588	- 3	1.0737	- 3	..	..	..	..	0.1899	0	0.2067	0	0.1876	+ 5
0.28	0.9722	- 2	0.9855	- 2	0.1461	- 5	0.1521	- 5	0.1714	- 1	0.1863	- 1	0.1701	+ 4
0.32	0.8921	0	0.9040	0	0.1318	- 5	0.1372	- 5	0.1561	- 2	0.1696	- 2	0.1557	+ 3
0.36	0.8191	+ 1	0.8299	+ 1	0.1196	- 5	0.1246	- 4	0.1432	- 3	0.1555	- 2	0.1436	+ 1
0.40	0.7530	+ 3	0.7629	+ 3	0.1092	- 4	0.1137	- 4	0.1322	- 3	0.1434	- 3	0.1332	0
0.44	0.6931	+ 5	0.7023	+ 5	0.1001	- 3	0.1043	- 3	0.1226	- 4	0.1330	- 3	0.1243	- 1
0.48	0.6387	+ 7	0.6472	+ 7	0.0921	- 2	0.0960	- 2	0.1142	- 4	0.1238	- 3	0.1164	- 1
0.52	0.5890	+10	0.5969	+10	0.0850	- 1	0.0886	- 1	..	..	..	..	0.1094	- 2
0.56	0.5433	+12	0.5508	+12	0.0785	+ 1	0.0819	+ 1	0.0998	- 3	0.1082	- 3	0.1030	- 2
0.60	0.5013	+16	0.5082	+15	0.0726	+ 3	0.0758	+ 3	0.0935	- 3	0.1014	- 3	0.0972	- 3
0.64	0.4623	+19	0.4689	+19	0.0672	+ 5	0.0702	+ 5	0.0877	- 2	0.0952	- 2	..	..
0.68	0.4260	+23	0.4322	+23	0.0621	+ 8	0.0650	+ 7	0.0823	- 1	0.0894	- 1	0.0868	- 2
0.72	0.3921	+28	0.3980	+28	0.0574	+11	0.0601	+10	0.0772	0	0.0839	0	0.0820	- 2
0.76	0.3602	+33	0.3659	+33	0.0529	+14	0.0555	+14	0.0723	+ 2	0.0787	+ 2	0.0774	- 1
0.80	0.3302	+40	0.3356	+39	0.0487	+19	0.0511	+18	0.0675	+ 4	0.0736	+ 4	0.0729	0
0.84	0.3018	+47	0.3070	+46	0.0446	+24	0.0469	+23	0.0628	+ 7	0.0686	+ 6	0.0685	+ 2
0.88	0.2749	+55	0.2798	+54	0.0406	+31	0.0428	+29	0.0581	+11	0.0637	+10	0.0639	+ 5
0.92	0.2492	+65	0.2539	+63	0.0366	+39	0.0388	+37	0.0532	+16	0.0586	+15	0.0592	+ 9
0.96	0.2247	+76	0.2292	+74	0.0325	+51	0.0345	+48	0.0478	+24	0.0529	+22	0.0538	+15
1.00	0.2012	+90	0.2056	+88	0.0267	+77	0.0287	+72	0.0385	+49	0.0434	+43	0.0440	+36
0.96	0.2247	+76	0.2292	+74	0.0265	+85	0.0286	+79	0.0344	+73	0.0396	+63	0.0386	+60
0.92	0.2492	+65	0.2539	+63	0.0283	+80	0.0304	+74	0.0346	+79	0.0399	+68	0.0380	+69
0.88	0.2749	+55	0.2798	+54	0.0305	+74	0.0328	+69	0.0356	+81	0.0412	+70	0.0384	+75
0.84	0.3018	+47	0.3070	+46	0.0332	+67	0.0355	+62	0.0372	+80	0.0431	+69	0.0394	+78
0.80	0.3302	+40	0.3356	+39	0.0361	+60	0.0386	+56	0.0394	+78	0.0454	+68	0.0409	+79
0.76	0.3602	+33	0.3659	+33	0.0394	+54	0.0420	+50	0.0419	+75	0.0483	+65	0.0429	+79
0.72	0.3921	+28	0.3980	+28	0.0430	+48	0.0457	+45	0.0450	+72	0.0517	+62	0.0453	+78
0.68	0.4260	+23	0.4322	+23	0.0470	+42	0.0499	+40	0.0485	+68	0.0555	+59	0.0483	+76
0.64	0.4623	+19	0.4689	+19	0.0514	+37	0.0545	+35	0.0525	+63	0.0600	+55	..	..
0.60	0.5013	+16	0.5082	+15	0.0564	+32	0.0595	+31	0.0572	+59	0.0651	+52	0.0558	+70
0.56	0.5433	+12	0.5508	+12	0.0618	+28	0.0652	+27	0.0625	+54	0.0709	+48	0.0605	+66
0.52	0.5890	+10	0.5969	+10	0.0680	+24	0.0716	+23	..	..	..	..	0.0660	+62
0.48	0.6387	+ 7	0.6472	+ 7	0.0749	+21	0.0788	+20	0.0755	+46	0.0851	+41	0.0724	+58
0.44	0.6931	+ 5	0.7023	+ 5	0.0827	+17	0.0869	+17	0.0836	+42	0.0939	+37	0.0799	+55
0.40	0.7530	+ 3	0.7629	+ 3	0.0918	+14	0.0963	+14	0.0930	+38	0.1042	+34	0.0887	+51
0.36	0.8191	+ 1	0.8299	+ 1	0.1023	+12	0.1072	+11	0.1041	+34	0.1164	+30	0.0991	+47
0.32	0.8921	0	0.9040	0	0.1146	+ 9	0.1200	+ 9	0.1174	+30	0.1309	+27	0.1116	+43
0.28	0.9722	- 2	0.9855	- 2	0.1293	+ 7	0.1353	+ 7	0.1334	+27	0.1484	+24	0.1269	+39
0.24	1.0588	- 3	1.0737	- 3	..	..	..	..	0.1531	+24	0.1699	+21	0.1457	+36
0.20	1.1478	- 4	1.1648	- 4	0.1689	+ 3	0.1767	+ 3	0.1777	+21	0.1966	+19	0.1694	+32
0.16	1.2267	- 5	1.2464	- 5	0.1964	+ 1	0.2054	+ 1	0.2090	+18	0.2313	+16	0.1998	+29
0.12	1.2589	- 6	1.2821	- 6	0.2307	0	0.2413	0	0.2493	+15	0.2756	+14	0.2391	+26
0.08	1.1399	- 8	1.1680	- 8	0.2705	- 1	0.2833	- 1	0.2991	+13	0.3308	+12	0.2883	+23
0.04	0.6682	-15	0.7018	-14	0.2969	- 3	0.3123	- 2	0.3429	+11	0.3809	+ 9	0.3334	+20
0	..	..	..	..	0.2629	- 3	0.2801	- 3	0.3311	+ 9	0.3737	+ 8	0.3278	+18

TABLE 8 (continued)

μ	φ = 0°		μ_o = 0.64; λ_o = 0.10								
	μ_o=0.64;λ=0.25		φ = 10°	φ = 20°	φ = 30°	φ = 40°	φ = 50°	φ = 60°	φ = 70°	φ = 80°	φ = 90°
	I_1+I_r	δ	I_1+I_r	I_1+I_r	I_1+I_r	I_1+I_r	I_1+I_r	I_1+I_r	I_1+I_r	I_1+I_r	I_1+I_r
0	0.3815	+15	0.3249	0.3163	0.3033	0.2872	0.2701	0.2541	0.2410	0.2325	0.2295
0.04	0.3958	+13	0.3447	0.3355	0.3213	0.3039	0.2852	0.2675	0.2527	0.2426	0.2383
0.08	0.3539	+11	0.3109	0.3025	0.2895	0.2734	0.2561	0.2395	0.2254	0.2154	0.2105
0.12	0.3048	+10	0.2691	0.2617	0.2504	0.2362	0.2209	0.2061	0.1934	0.1840	0.1789
0.16	0.2648	+ 8	0.2345	0.2281	0.2181	0.2057	0.1921	0.1789	0.1674	0.1586	0.1534
0.20	0.2335	+ 6	0.2074	0.2017	0.1928	0.1817	0.1696	0.1577	0.1471	0.1389	0.1338
0.24	0.2088	+ 5	0.1859	0.1807	0.1728	0.1628	0.1519	0.1410	0.1313	0.1236	0.1185
0.28	0.1890	+ 3	0.1685	0.1639	0.1567	0.1477	0.1377	0.1277	0.1187	0.1114	0.1064
0.32	0.1727	+ 2	0.1542	0.1500	0.1435	0.1352	0.1261	0.1169	0.1085	0.1016	0.0966
0.36	0.1590	+ 1	0.1423	0.1384	0.1324	0.1248	0.1164	0.1079	0.1000	0.0934	0.0886
0.40	0.1474	0	0.1320	0.1285	0.1230	0.1160	0.1082	0.1003	0.0930	0.0867	0.0819
0.44	0.1373	- 1	0.1232	0.1199	0.1149	0.1084	0.1012	0.0939	0.0869	0.0810	0.0763
0.48	0.1285	- 1	0.1154	0.1124	0.1077	0.1018	0.0951	0.0883	0.0817	0.0761	0.0715
0.52	0.1207	- 2	0.1084	0.1057	0.1014	0.0959	0.0897	0.0834	0.0772	0.0718	0.0675
0.56	0.1136	- 2	0.1021	0.0996	0.0957	0.0906	0.0849	0.0790	0.0732	0.0681	0.0639
0.60	0.1071	- 2	0.0964	0.0941	0.0905	0.0859	0.0806	0.0751	0.0697	0.0649	0.0608
0.64	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.68	0.0957	- 2	0.0861	0.0842	0.0812	0.0774	0.0730	0.0683	0.0637	0.0594	0.0557
0.72	0.0904	- 2	0.0814	0.0797	0.0770	0.0735	0.0695	0.0653	0.0611	0.0571	0.0536
0.76	0.0854	- 1	0.0769	0.0754	0.0730	0.0699	0.0663	0.0625	0.0586	0.0550	0.0517
0.80	0.0806	0	0.0724	0.0711	0.0690	0.0663	0.0632	0.0598	0.0563	0.0530	0.0501
0.84	0.0758	+ 2	0.0681	0.0670	0.0652	0.0628	0.0601	0.0572	0.0542	0.0513	0.0486
0.88	0.0710	+ 4	0.0636	0.0627	0.0612	0.0593	0.0571	0.0546	0.0521	0.0496	0.0472
0.92	0.0659	+ 8	0.0589	0.0582	0.0571	0.0557	0.0539	0.0520	0.0500	0.0480	0.0460
0.96	0.0603	+13	0.0537	0.0532	0.0525	0.0515	0.0504	0.0491	0.0477	0.0463	0.0450
1.00	0.0502	+31	0.0440	0.0440	0.0440	0.0440	0.0440	0.0440	0.0440	0.0440	0.0440
0.96	0.0451	+52	0.0387	0.0389	0.0393	0.0399	0.0406	0.0415	0.0425	0.0437	0.0450
0.92	0.0448	+59	0.0381	0.0384	0.0388	0.0394	0.0403	0.0414	0.0427	0.0443	0.0460
0.88	0.0454	+63	0.0385	0.0387	0.0391	0.0397	0.0406	0.0418	0.0433	0.0451	0.0472
0.84	0.0467	+66	0.0394	0.0396	0.0400	0.0406	0.0414	0.0426	0.0442	0.0462	0.0486
0.80	0.0486	+67	0.0409	0.0410	0.0413	0.0418	0.0426	0.0438	0.0454	0.0475	0.0501
0.76	0.0509	+66	0.0429	0.0429	0.0431	0.0434	0.0441	0.0452	0.0468	0.0490	0.0517
0.72	0.0538	+65	0.0453	0.0453	0.0453	0.0455	0.0460	0.0470	0.0485	0.0507	0.0536
0.68	0.0572	+64	0.0482	0.0480	0.0479	0.0479	0.0482	0.0490	0.0505	0.0527	0.0557
0.64	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
0.60	0.0657	+59	0.0556	0.0552	0.0546	0.0541	0.0540	0.0544	0.0556	0.0577	0.0608
0.56	0.0711	+56	0.0603	0.0597	0.0589	0.0581	0.0576	0.0577	0.0587	0.0607	0.0639
0.52	0.0773	+53	0.0657	0.0650	0.0639	0.0627	0.0619	0.0617	0.0624	0.0643	0.0675
0.48	0.0845	+50	0.0720	0.0710	0.0696	0.0681	0.0668	0.0663	0.0667	0.0684	0.0715
0.44	0.0929	+47	0.0794	0.0782	0.0764	0.0744	0.0727	0.0717	0.0717	0.0732	0.0763
0.40	0.1028	+44	0.0881	0.0866	0.0844	0.0819	0.0796	0.0780	0.0777	0.0789	0.0819
0.36	0.1145	+40	0.0985	0.0966	0.0939	0.0908	0.0878	0.0857	0.0848	0.0857	0.0886
0.32	0.1286	+37	0.1109	0.1086	0.1053	0.1015	0.0978	0.0949	0.0934	0.0939	0.0966
0.28	0.1457	+34	0.1259	0.1233	0.1192	0.1145	0.1099	0.1061	0.1039	0.1039	0.1064
0.24	0.1669	+31	0.1446	0.1413	0.1365	0.1307	0.1249	0.1201	0.1170	0.1163	0.1185
0.20	0.1936	+28	0.1680	0.1641	0.1582	0.1511	0.1439	0.1377	0.1335	0.1320	0.1338
0.16	0.2278	+25	0.1981	0.1933	0.1860	0.1773	0.1683	0.1604	0.1547	0.1522	0.1534
0.12	0.2723	+23	0.2370	0.2311	0.2222	0.2113	0.2000	0.1899	0.1823	0.1784	0.1789
0.08	0.3283	+20	0.2857	0.2784	0.2673	0.2538	0.2397	0.2267	0.2167	0.2110	0.2105
0.04	0.3814	+17	0.3305	0.3219	0.3088	0.2928	0.2760	0.2603	0.2478	0.2401	0.2383
0	0.3815	+15	0.3249	0.3163	0.3033	0.2872	0.2701	0.2541	0.2410	0.2325	0.2295

TABLE 8 (continued)

μ	μ_0=0.64 λ_0=0.25	μ_0 = 0.72; φ = 0°				μ_0 = 0.80; φ = 0°				μ_0 = 1.00			
	φ = 90°	λ_0 = 0.10		λ_0 = 0.25		λ_0 = 0.10		λ_0 = 0.25		λ_0 = 0.10		λ_0 = 0.25	
	I_1+I_r	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ
0	0.2832	0.3190	+25	0.3801	+21	0.3057	+35	0.3742	+28	0.2548	+72	0.3419	+53
0.04	0.2863	0.3363	+23	0.3909	+19	0.3200	+32	0.3812	+27	0.2556	+75	0.3335	+57
0.08	0.2505	0.3030	+20	0.3486	+17	0.2879	+29	0.3390	+25	0.2238	+75	0.2888	+58
0.12	0.2120	0.2625	+18	0.3003	+15	0.2495	+27	0.2916	+23	0.1901	+74	0.2439	+58
0.16	0.1815	0.2293	+15	0.2612	+13	0.2182	+24	0.2540	+20	0.1636	+73	0.2091	+57
0.20	0.1580	0.2032	+13	0.2307	+11	0.1937	+21	0.2246	+18	0.1434	+71	0.1827	+56
0.24	0.1397	0.1826	+11	0.2067	+10	0.1745	+19	0.2016	+16	0.1280	+69	0.1624	+55
0.28	0.1253	0.1660	+ 9	0.1875	+ 8	0.1591	+16	0.1832	+14	0.1160	+67	0.1466	+53
0.32	0.1136	0.1524	+ 7	0.1718	+ 6	0.1466	+14	0.1683	+12	0.1064	+64	0.1340	+51
0.36	0.1040	0.1411	+ 6	0.1587	+ 5	0.1361	+12	0.1558	+10	0.0988	+61	0.1239	+49
0.40	0.0961	0.1314	+ 4	0.1475	+ 4	0.1273	+10	0.1453	+ 8	0.0926	+58	0.1155	+46
0.44	0.0894	0.1231	+ 3	0.1379	+ 2	0.1197	+ 8	0.1363	+ 7	0.0874	+54	0.1087	+44
0.48	0.0837	0.1157	+ 1	0.1295	+ 1	0.1130	+ 6	0.1285	+ 5	0.0832	+51	0.1029	+41
0.52	0.0788	0.1092	0	0.1221	0	0.1071	+ 4	0.1216	+ 4	0.0797	+47	0.0981	+38
0.56	0.0745	0.1033	0	0.1154	0	0.1019	+ 3	0.1154	+ 3	0.0768	+43	0.0940	+35
0.60	0.0708	0.0980	- 1	0.1093	- 1	0.0971	+ 2	0.1098	+ 2	0.0744	+39	0.0905	+32
0.64	. .	0.0930	- 2	0.1037	- 1	0.0927	+ 1	0.1047	+ 1	0.0723	+35	0.0876	+29
0.68	0.0646	0.0884	- 2	0.0985	- 2	0.0886	0	0.0999	0	0.0706	+31	0.0851	+26
0.72	0.0621	. .	. .	. .	. .	0.0847	- 1	0.0955	- 1	0.0692	+27	0.0829	+23
0.76	0.0598	0.0797	- 2	0.0889	- 1	0.0810	- 1	0.0912	- 1	0.0680	+23	0.0811	+19
0.80	0.0577	0.0756	- 1	0.0843	- 1	. .	. .	. .	. .	0.0671	+19	0.0796	+16
0.84	0.0559	0.0715	0	0.0798	0	0.0737	- 1	0.0831	- 1	0.0663	+15	0.0782	+13
0.88	0.0543	0.0673	+ 2	0.0753	+ 2	0.0700	0	0.0790	0	0.0657	+11	0.0772	+10
0.92	0.0528	0.0628	+ 5	0.0705	+ 4	0.0660	+ 2	0.0747	+ 2	0.0653	+ 6	0.0762	+ 7
0.96	0.0514	0.0577	+10	0.0651	+ 9	0.0614	+ 5	0.0697	+ 5	0.0649	+ 4	0.0755	+ 3
1.00	0.0502	0.0480	+27	0.0551	+24	0.0524	+19	0.0603	+16	0.0066	0	0.0167	0
0.96	0.0514	0.0421	+51	0.0495	+43	0.0463	+40	0.0546	+34	0.0649	+ 4	0.0755	+ 3
0.92	0.0528	0.0410	+61	0.0487	+51	0.0449	+50	0.0535	+42	0.0653	+ 8	0.0762	+ 7
0.88	0.0543	0.0410	+67	0.0490	+56	0.0445	+58	0.0535	+48	0.0657	+11	0.0772	+10
0.84	0.0559	0.0415	+72	0.0499	+60	0.0447	+64	0.0540	+53	0.0663	+15	0.0782	+13
0.80	0.0577	0.0426	+76	0.0514	+63	. .	. .	. .	. .	0.0671	+19	0.0796	+16
0.76	0.0598	0.0442	+77	0.0533	+64	0.0465	+72	0.0567	+59	0.0680	+23	0.0811	+19
0.72	0.0621	. .	. .	. .	. .	0.0481	+75	0.0589	+61	0.0692	+27	0.0829	+23
0.68	0.0646	0.0488	+78	0.0589	+64	0.0501	+77	0.0615	+62	0.0706	+31	0.0851	+26
0.64	. .	0.0518	+77	0.0625	+64	0.0527	+77	0.0647	+63	0.0723	+35	0.0876	+29
0.60	0.0708	0.0554	+75	0.0667	+62	0.0557	+77	0.0685	+63	0.0744	+39	0.0905	+32
0.56	0.0745	0.0596	+73	0.0716	+60	0.0594	+77	0.0729	+62	0.0768	+43	0.0940	+35
0.52	0.0788	0.0646	+70	0.0774	+58	0.0638	+75	0.0783	+62	0.0797	+47	0.0981	+38
0.48	0.0837	0.0704	+67	0.0841	+56	0.0690	+74	0.0845	+60	0.0832	+51	0.1029	+41
0.44	0.0894	0.0773	+63	0.0922	+53	0.0753	+71	0.0919	+58	0.0874	+54	0.1087	+44
0.40	0.0961	0.0855	+60	0.1016	+50	0.0827	+69	0.1008	+56	0.0926	+58	0.1155	+46
0.36	0.1040	0.0953	+56	0.1129	+48	0.0917	+66	0.1114	+54	0.0988	+61	0.1239	+49
0.32	0.1136	0.1071	+53	0.1264	+45	0.1025	+63	0.1242	+52	0.1064	+64	0.1340	+51
0.28	0.1253	0.1215	+49	0.1430	+42	0.1159	+60	0.1400	+49	0.1160	+67	0.1466	+53
0.24	0.1397	0.1394	+45	0.1635	+39	0.1326	+56	0.1597	+47	0.1280	+69	0.1624	+55
0.20	0.1580	0.1620	+42	0.1895	+36	0.1537	+53	0.1846	+44	0.1434	+71	0.1827	+56
0.16	0.1815	0.1911	+38	0.2230	+33	0.1811	+49	0.2169	+41	0.1636	+73	0.2091	+57
0.12	0.2120	0.2290	+35	0.2667	+30	0.2169	+46	0.2592	+38	0.1901	+74	0.2439	+58
0.08	0.2505	0.2766	+32	0.3222	+27	0.2621	+42	0.3132	+35	0.2238	+75	0.2888	+58
0.04	0.2863	0.3214	+28	0.3760	+24	0.3055	+38	0.3667	+32	0.2556	+75	0.3335	+57
0	0.2832	0.3190	+25	0.3801	+21	0.3057	+35	0.3742	+28	0.2548	+72	0.3419	+53

TABLE 9

THE EFFECT OF A GROUND REFLECTING ACCORDING TO LAMBERT'S LAW WITH AN ALBEDO λ_o ON THE ILLUMINATION AND POLARIZATION OF THE SKY ($\tau_1 = 0.10$)

μ	$\mu_o = 0$				$\mu_o = 0.16$				$\mu_o = 0.50$	
	$\lambda_o = 0.10$		$\lambda_o = 0.20$		$\lambda_o = 0.10$		$\lambda_o = 0.20$		$\lambda_o = 0.10$	
	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ
0	..	..	..	..	0.2476	- 3	0.2548	- 3	0.3419	+ 9
0.04	1.2601	- 9	1.2812	- 9	0.2775	- 4	0.2835	- 4	0.3411	+ 7
0.08	1.7473	- 6	1.7633	- 6	0.2275	- 4	0.2321	- 4	0.2733	+ 5
0.12	1.6798	- 4	1.6923	- 4	0.1839	- 5	0.1875	- 5	0.2208	+ 4
0.16	1.5132	- 4	1.5235	- 3	..	..	..	..	0.1844	+ 2
0.20	1.3474	- 3	1.3561	- 3	0.1297	- 4	0.1322	- 4	0.1583	+ 1
0.24	1.2015	- 2	1.2090	- 2	0.1125	- 4	0.1146	- 4	0.1387	0
0.28	1.0764	0	1.0829	0	0.0989	- 4	0.1008	- 4	0.1235	- 1
0.32	0.9693	+ 1	0.9752	+ 1	0.0880	- 3	0.0897	- 3	0.1112	- 2
0.36	0.8770	+ 2	0.8823	+ 2	0.0790	- 2	0.0806	- 2	0.1012	- 2
0.40	0.7967	+ 4	0.8016	+ 4	0.0714	- 1	0.0728	- 1	0.0927	- 3
0.44	0.7262	+ 6	0.7307	+ 6	0.0649	0	0.0662	0	0.0855	- 3
0.48	0.6637	+ 8	0.6678	+ 8	0.0593	+ 1	0.0604	+ 1	0.0792	- 3
0.52	0.6078	+11	0.6116	+11	0.0543	+ 3	0.0554	+ 3	0.0736	- 3
0.56	0.5573	+14	0.5609	+14	0.0498	+ 5	0.0508	+ 5	0.0686	- 3
0.60	0.5115	+17	0.5148	+17	0.0458	+ 7	0.0467	+ 7	0.0641	- 2
0.64	0.4695	+21	0.4727	+21	0.0421	+10	0.0430	+10	0.0599	- 1
0.68	0.4308	+25	0.4338	+25	0.0387	+13	0.0396	+13	0.0560	0
0.72	0.3951	+30	0.3979	+29	0.0356	+17	0.0364	+16	0.0524	+ 1
0.76	0.3617	+35	0.3644	+35	0.0326	+21	0.0334	+21	0.0489	+ 3
0.80	0.3305	+41	0.3331	+41	0.0299	+26	0.0306	+25	0.0456	+ 5
0.84	0.3012	+49	0.3037	+48	0.0272	+32	0.0279	+31	0.0423	+ 8
0.88	0.2736	+57	0.2759	+56	0.0247	+39	0.0254	+38	0.0390	+12
0.92	0.2474	+67	0.2496	+66	0.0222	+49	0.0228	+47	0.0356	+18
0.96	0.2225	+78	0.2247	+78	0.0197	+61	0.0203	+59	0.0319	+27
1.00	0.1988	+92	0.2009	+92	0.0165	+85	0.0171	+82	0.0256	+52
0.96	0.2225	+78	0.2247	+78	0.0170	+86	0.0177	+83	0.0230	+76
0.92	0.2474	+67	0.2496	+66	0.0185	+79	0.0191	+76	0.0232	+81
0.88	0.2736	+57	0.2759	+56	0.0202	+70	0.0209	+68	0.0240	+83
0.84	0.3012	+49	0.3037	+48	0.0221	+63	0.0228	+61	0.0252	+82
0.80	0.3305	+41	0.3331	+41	0.0242	+55	0.0250	+54	0.0267	+80
0.76	0.3617	+35	0.3644	+35	0.0266	+49	0.0273	+47	0.0286	+76
0.72	0.3951	+30	0.3979	+29	0.0291	+43	0.0299	+41	0.0307	+72
0.68	0.4308	+25	0.4338	+25	0.0319	+37	0.0328	+36	0.0332	+68
0.64	0.4695	+21	0.4727	+21	0.0350	+32	0.0359	+31	0.0361	+64
0.60	0.5115	+17	0.5148	+17	0.0384	+28	0.0394	+27	0.0395	+59
0.56	0.5573	+14	0.5609	+14	0.0422	+24	0.0433	+23	0.0433	+54
0.52	0.6078	+11	0.6116	+11	0.0465	+20	0.0476	+20	0.0477	+50
0.48	0.6637	+ 8	0.6678	+ 8	0.0514	+17	0.0526	+16	0.0527	+46
0.44	0.7262	+ 6	0.7307	+ 6	0.0570	+14	0.0582	+13	0.0587	+41
0.40	0.7967	+ 4	0.8016	+ 4	0.0634	+11	0.0648	+11	0.0657	+37
0.36	0.8770	+ 2	0.8823	+ 2	0.0710	+ 9	0.0725	+ 9	0.0740	+34
0.32	0.9693	+ 1	0.9752	+ 1	0.0800	+ 7	0.0817	+ 6	0.0841	+30
0.28	1.0764	0	1.0829	0	0.0910	+ 5	0.0929	+ 5	0.0966	+27
0.24	1.2015	- 2	1.2090	- 2	0.1047	+ 3	0.1068	+ 3	0.1123	+24
0.20	1.3474	- 3	1.3561	- 3	0.1222	+ 1	0.1247	+ 1	0.1326	+21
0.16	1.5132	- 4	1.5235	- 3	..	..	..	..	0.1601	+18
0.12	1.6798	- 4	1.6923	- 4	0.1774	- 1	0.1810	- 1	0.1986	+15
0.08	1.7473	- 6	1.7633	- 6	0.2221	- 2	0.2267	- 2	0.2545	+13
0.04	1.2601	- 9	1.2812	- 9	0.2742	- 3	0.2803	- 3	0.3293	+11
0	..	..	..	..	0.2476	- 3	0.2548	- 3	0.3419	+ 9

TABLE 9 (continued)

μ	$\mu_o = 0.50$		$\mu_o = 0.86$				$\mu_o = 1.00$			
	$\lambda_o = 0.20$		$\lambda_o = 0.10$		$\lambda_o = 0.20$		$\lambda_o = 0.10$		$\lambda_o = 0.20$	
	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ
0	0.3688	+ 8	0.2922	+45	0.3402	+38	0.2521	+74	0.3083	+60
0.04	0.3637	+ 6	0.2831	+43	0.3234	+37	0.2358	+76	0.2831	+64
0.08	0.2904	+ 5	0.2265	+40	0.2571	+35	0.1844	+76	0.2202	+64
0.12	0.2343	+ 3	0.1841	+36	0.2081	+32	0.1471	+76	0.1752	+63
0.16	0.1954	+ 2	0.1551	+33	0.1748	+30	0.1220	+74	0.1450	+62
0.20	0.1676	+ 1	0.1345	+30	0.1511	+27	0.1044	+72	0.1238	+61
0.24	0.1467	0	0.1193	+27	0.1337	+24	0.0916	+70	0.1084	+59
0.28	0.1305	- 1	0.1076	+24	0.1203	+22	0.0820	+68	0.0968	+57
0.32	0.1175	- 2	0.0984	+22	0.1097	+19	0.0745	+65	0.0877	+55
0.36	0.1069	- 2	0.0910	+19	0.1011	+17	0.0687	+62	0.0806	+53
0.40	0.0979	- 3	0.0848	+16	0.0940	+15	0.0640	+58	0.0748	+50
0.44	0.0903	- 3	0.0796	+14	0.0881	+13	0.0602	+55	0.0701	+47
0.48	0.0836	- 3	0.0751	+12	0.0830	+11	0.0570	+51	0.0662	+44
0.52	0.0777	- 3	0.0712	+10	0.0785	+ 9	0.0544	+47	0.0630	+41
0.56	0.0724	- 3	0.0678	+ 8	0.0746	+ 7	0.0523	+43	0.0603	+37
0.60	0.0677	- 2	0.0647	+ 6	0.0711	+ 5	0.0505	+39	0.0580	+34
0.64	0.0633	- 1	0.0619	+ 4	0.0680	+ 4	0.0490	+35	0.0561	+31
0.68	0.0592	0	0.0594	+ 3	0.0651	+ 3	0.0478	+31	0.0545	+27
0.72	0.0554	+ 1	0.0570	+ 2	0.0624	+ 1	0.0468	+27	0.0531	+24
0.76	0.0518	+ 3	0.0547	+ 1	0.0599	+ 1	0.0459	+23	0.0520	+20
0.80	0.0483	+ 5	0.0525	0	0.0574	0	0.0452	+19	0.0510	+17
0.84	0.0449	+ 8	0.0505	- 1	0.0552	- 1	0.0447	+15	0.0502	+13
0.88	0.0415	+12	0.0481	0	0.0526	0	0.0442	+11	0.0495	+10
0.92	0.0381	+17	0.0458	0	0.0501	0	0.0439	+ 7	0.0489	+ 7
0.96	0.0342	+25	0.0430	+ 2	0.0472	+ 2	0.0436	+ 4	0.0484	+ 3
1.00	0.0279	+48	0.0375	+13	0.0414	+11	0.0046	0	0.0092	0
0.96	0.0253	+69	0.0336	+31	0.0378	+28	0.0436	+ 4	0.0484	+ 3
0.92	0.0256	+74	0.0327	+41	0.0370	+36	0.0439	+ 7	0.0489	+ 7
0.88	0.0265	+75	0.0323	+48	0.0368	+42	0.0442	+11	0.0495	+10
0.84	0.0278	+74	0.0324	+55	0.0371	+48	0.0447	+15	0.0502	+13
0.80	0.0295	+72	0.0326	+61	0.0375	+53	0.0452	+19	0.0510	+17
0.76	0.0314	+69	0.0332	+66	0.0383	+57	0.0459	+23	0.0520	+20
0.72	0.0338	+66	0.0341	+70	0.0395	+60	0.0468	+27	0.0531	+24
0.68	0.0364	+62	0.0353	+73	0.0410	+63	0.0478	+31	0.0545	+27
0.64	0.0395	+58	0.0368	+75	0.0428	+65	0.0490	+35	0.0561	+31
0.60	0.0431	+54	0.0387	+77	0.0451	+66	0.0505	+39	0.0580	+34
0.56	0.0471	+50	0.0410	+78	0.0478	+67	0.0523	+43	0.0603	+37
0.52	0.0518	+46	0.0438	+78	0.0511	+67	0.0544	+47	0.0630	+41
0.48	0.0571	+42	0.0471	+78	0.0550	+67	0.0570	+51	0.0662	+44
0.44	0.0634	+38	0.0512	+77	0.0597	+66	0.0602	+55	0.0701	+47
0.40	0.0709	+35	0.0561	+76	0.0654	+65	0.0640	+58	0.0748	+50
0.36	0.0797	+31	0.0622	+74	0.0724	+63	0.0687	+62	0.0806	+53
0.32	0.0904	+28	0.0697	+72	0.0810	+62	0.0745	+65	0.0877	+55
0.28	0.1036	+25	0.0792	+69	0.0918	+60	0.0820	+68	0.0968	+57
0.24	0.1203	+22	0.0913	+66	0.1057	+57	0.0916	+70	0.1084	+59
0.20	0.1419	+19	0.1074	+63	0.1240	+55	0.1044	+72	0.1238	+61
0.16	0.1711	+17	0.1293	+60	0.1489	+52	0.1220	+74	0.1450	+62
0.12	0.2120	+14	0.1605	+57	0.1845	+49	0.1471	+76	0.1752	+63
0.08	0.2717	+12	0.2066	+53	0.2372	+46	0.1844	+76	0.2202	+64
0.04	0.3518	+10	0.2704	+49	0.3107	+43	0.2358	+76	0.2831	+64
0	0.3688	+ 8	0.2922	+45	0.3402	+38	0.2521	+74	0.3083	+60

TABLE 10

THE EFFECT OF A GROUND REFLECTING ACCORDING TO LAMBERT'S LAW WITH AN ALBEDO λ_0 ON THE ILLUMINATION AND POLARIZATION OF THE SKY ($\tau_1 = 0.20$)

μ	$\mu_0 = 0$				$\mu_0 = 0.16$				$\mu_0 = 0.50$	
	$\lambda_0 = 0.10$		$\lambda_0 = 0.20$		$\lambda_0 = 0.10$		$\lambda_0 = 0.20$		$\lambda_0 = 0.10$	
	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ
0	. .	. .	. .	. .	0.1650	- 6	0.1715	- 6	0.3182	+ 7
0.04	0.4708	-18	0.4934	-17	0.2073	- 7	0.2132	- 7	0.3506	+ 4
0.08	0.7960	-11	0.8159	-11	0.2193	- 7	0.2246	- 7	0.3423	+ 3
0.12	0.9677	- 8	0.9848	- 8	0.2063	- 7	0.2108	- 7	0.3123	+ 2
0.16	1.0065	- 7	1.0214	- 6	. .	. .	. .	. .	0.2808	0
0.20	0.9837	- 5	0.9968	- 5	0.1692	- 7	0.1726	- 7	0.2581	- 1
0.24	0.9358	- 4	0.9474	- 4	0.1529	- 6	0.1559	- 6	0.2296	- 2
0.28	0.8790	- 3	0.8895	- 3	0.1387	- 6	0.1415	- 6	0.2097	- 3
0.32	0.8207	- 1	0.8302	- 1	0.1264	- 5	0.1289	- 5	0.1927	- 3
0.36	0.7641	0	0.7727	0	0.1156	- 5	0.1179	- 4	0.1780	- 4
0.40	0.7103	+ 2	0.7183	+ 2	0.1061	- 4	0.1082	- 3	0.1652	- 4
0.44	0.6599	+ 4	0.6673	+ 4	0.0976	- 2	0.0996	- 2	0.1538	- 4
0.48	0.6128	+ 6	0.6197	+ 6	0.0900	- 1	0.0919	- 1	0.1437	- 4
0.52	0.5689	+ 9	0.5754	+ 8	0.0832	+ 1	0.0849	+ 1	0.1346	- 4
0.56	0.5279	+11	0.5340	+11	0.0769	+ 3	0.0785	+ 3	0.1262	- 4
0.60	0.4895	+15	0.4952	+14	0.0712	+ 5	0.0727	+ 5	0.1185	- 3
0.64	0.4535	+18	0.4589	+18	0.0658	+ 8	0.0673	+ 8	0.1113	- 3
0.68	0.4196	+22	0.4247	+22	0.0609	+11	0.0622	+11	0.1045	- 1
0.72	0.3876	+27	0.3925	+26	0.0562	+14	0.0575	+14	0.0980	0
0.76	0.3573	+32	0.3619	+32	0.0518	+19	0.0530	+18	0.0918	+ 2
0.80	0.3285	+38	0.3330	+38	0.0476	+23	0.0487	+23	0.0858	+ 4
0.84	0.3012	+45	0.3054	+44	0.0435	+29	0.0446	+29	0.0798	+ 7
0.88	0.2750	+53	0.2791	+52	0.0396	+37	0.0407	+36	0.0738	+11
0.92	0.2500	+63	0.2539	+62	0.0357	+46	0.0367	+44	0.0675	+17
0.96	0.2260	+74	0.2297	+73	0.0318	+58	0.0328	+56	0.0606	+26
1.00	0.2029	+87	0.2065	+86	0.0267	+81	0.0277	+78	0.0488	+50
0.96	0.2260	+74	0.2297	+73	0.0276	+81	0.0286	+79	0.0439	+73
0.92	0.2500	+63	0.2539	+62	0.0299	+74	0.0310	+71	0.0443	+78
0.88	0.2750	+53	0.2791	+52	0.0326	+66	0.0337	+64	0.0458	+80
0.84	0.3012	+45	0.3054	+44	0.0356	+58	0.0367	+56	0.0480	+78
0.80	0.3285	+38	0.3330	+38	0.0389	+51	0.0400	+50	0.0508	+76
0.76	0.3573	+32	0.3619	+32	0.0424	+45	0.0436	+43	0.0542	+72
0.72	0.3876	+27	0.3925	+26	0.0463	+39	0.0476	+38	0.0582	+68
0.68	0.4196	+22	0.4247	+22	0.0505	+33	0.0519	+33	0.0627	+64
0.64	0.4535	+18	0.4589	+18	0.0551	+29	0.0565	+28	0.0679	+60
0.60	0.4895	+15	0.4952	+14	0.0601	+24	0.0616	+24	0.0738	+55
0.56	0.5279	+11	0.5340	+11	0.0656	+20	0.0672	+20	0.0804	+51
0.52	0.5689	+ 9	0.5754	+ 8	0.0717	+17	0.0734	+17	0.0881	+46
0.48	0.6128	+ 6	0.6197	+ 6	0.0785	+14	0.0803	+13	0.0967	+42
0.44	0.6599	+ 4	0.6673	+ 4	0.0860	+11	0.0880	+11	0.1066	+38
0.40	0.7103	+ 2	0.7183	+ 2	0.0945	+ 8	0.0966	+ 8	0.1180	+34
0.36	0.7641	0	0.7727	0	0.1042	+ 6	0.1064	+ 6	0.1313	+30
0.32	0.8207	- 1	0.8302	- 1	0.1152	+ 4	0.1177	+ 4	0.1468	+27
0.28	0.8790	- 3	0.8895	- 3	0.1279	+ 2	0.1307	+ 2	0.1651	+24
0.24	0.9358	- 4	0.9474	- 4	0.1426	0	0.1457	0	0.1870	+21
0.20	0.9837	- 5	0.9968	- 5	0.1597	- 1	0.1631	- 1	0.2132	+18
0.16	1.0065	- 7	1.0214	- 6	. .	. .	. .	. .	0.2448	+15
0.12	0.9677	- 8	0.9848	- 8	0.1993	- 4	0.2038	- 4	0.2817	+13
0.08	0.7960	-11	0.8159	-11	0.2144	- 5	0.2196	- 5	0.3197	+10
0.04	0.4708	-18	0.4934	-17	0.2049	- 6	0.2109	- 6	0.3388	+ 8
0	. .	. .	. .	. .	0.1650	- 6	0.1715	- 6	0.3182	+ 7

TABLE 10 (continued)

μ	$\mu_o = 0.50$		$\mu_o = 0.86$				$\mu_o = 1.00$			
	$\lambda_o = 0.20$		$\lambda_o = 0.10$		$\lambda_o = 0.20$		$\lambda_o = 0.10$		$\lambda_o = 0.20$	
	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ	I_1+I_r	δ
0	0.3451	+ 6	0.2925	+42	0.3423	+36	0.2564	+71	0.3152	+57
0.04	0.3752	+ 4	0.3113	+40	0.3568	+35	0.2632	+73	0.3169	+60
0.08	0.3640	+ 3	0.2997	+37	0.3398	+33	0.2467	+73	0.2941	+61
0.12	0.3310	+ 1	0.2730	+34	0.3076	+30	0.2202	+73	0.2610	+61
0.16	0.2971	0	0.2467	+31	0.2767	+28	0.1956	+72	0.2311	+61
0.20	0.2674	- 1	0.2241	+28	0.2505	+25	0.1753	+70	0.2064	+60
0.24	0.2423	- 2	0.2054	+26	0.2288	+23	0.1589	+68	0.1865	+58
0.28	0.2211	- 2	0.1898	+23	0.2109	+21	0.1456	+66	0.1705	+56
0.32	0.2030	- 3	0.1768	+20	0.1959	+18	0.1348	+63	0.1574	+54
0.36	0.1874	- 4	0.1657	+18	0.1832	+16	0.1260	+61	0.1466	+52
0.40	0.1739	- 4	0.1563	+15	0.1724	+14	0.1187	+57	0.1377	+49
0.44	0.1619	- 4	0.1481	+13	0.1630	+12	0.1126	+54	0.1302	+47
0.48	0.1512	- 4	0.1409	+11	0.1548	+10	0.1076	+50	0.1240	+44
0.52	0.1417	- 4	0.1345	+ 9	0.1475	+ 8	0.1034	+47	0.1187	+41
0.56	0.1328	- 4	0.1287	+ 7	0.1409	+ 6	0.0998	+43	0.1142	+38
0.60	0.1247	- 3	0.1235	+ 5	0.1350	+ 5	0.0969	+39	0.1105	+34
0.64	0.1172	- 2	0.1187	+ 4	0.1296	+ 3	0.0944	+35	0.1072	+31
0.68	0.1101	- 1	0.1142	+ 2	0.1245	+ 2	0.0923	+31	0.1045	+28
0.72	0.1033	0	0.1099	+ 1	0.1197	+ 1	0.0906	+27	0.1022	+24
0.76	0.0969	+ 2	0.1058	0	0.1152	0	0.0892	+23	0.1002	+21
0.80	0.0906	+ 4	0.1018	0	0.1108	0	0.0880	+19	0.0986	+17
0.84	0.0844	+ 7	0.0979	- 1	0.1065	- 1	0.0871	+16	0.0972	+14
0.88	0.0782	+11	0.0936	0	0.1018	0	0.0864	+12	0.0961	+11
0.92	0.0718	+16	0.0892	0	0.0971	0	0.0859	+ 8	0.0952	+ 7
0.96	0.0647	+24	0.0840	+ 3	0.0916	+ 3	0.0855	+ 4	0.0945	+ 4
1.00	0.0528	+47	0.0734	+13	0.0807	+12	0.0084	0	0.0170	0
0.96	0.0480	+67	0.0657	+31	0.0733	+28	0.0855	+ 4	0.0945	+ 4
0.92	0.0486	+72	0.0637	+41	0.0716	+36	0.0859	+ 8	0.0952	+ 7
0.88	0.0502	+73	0.0628	+48	0.0710	+43	0.0864	+12	0.0961	+11
0.84	0.0526	+72	0.0629	+55	0.0715	+48	0.0871	+16	0.0972	+14
0.80	0.0557	+69	0.0634	+60	0.0723	+53	0.0880	+19	0.0986	+17
0.76	0.0593	+66	0.0644	+65	0.0738	+57	0.0892	+23	0.1002	+21
0.72	0.0635	+63	0.0660	+69	0.0759	+60	0.0906	+27	0.1022	+24
0.68	0.0683	+59	0.0682	+72	0.0785	+62	0.0923	+31	0.1045	+28
0.64	0.0738	+55	0.0709	+74	0.0818	+64	0.0944	+35	0.1072	+31
0.60	0.0800	+51	0.0743	+75	0.0858	+65	0.0969	+39	0.1105	+34
0.56	0.0871	+47	0.0783	+76	0.0906	+66	0.0998	+43	0.1142	+38
0.52	0.0952	+43	0.0832	+76	0.0962	+66	0.1034	+47	0.1187	+41
0.48	0.1042	+39	0.0890	+75	0.1029	+65	0.1076	+50	0.1240	+44
0.44	0.1147	+35	0.0960	+74	0.1109	+64	0.1126	+54	0.1302	+47
0.40	0.1267	+32	0.1043	+73	0.1204	+63	0.1187	+57	0.1377	+49
0.36	0.1407	+28	0.1142	+71	0.1317	+62	0.1260	+61	0.1466	+52
0.32	0.1571	+25	0.1261	+69	0.1452	+60	0.1348	+63	0.1574	+54
0.28	0.1765	+22	0.1405	+66	0.1616	+57	0.1456	+66	0.1705	+56
0.24	0.1996	+19	0.1581	+63	0.1816	+55	0.1589	+68	0.1865	+58
0.20	0.2275	+17	0.1798	+60	0.2062	+52	0.1753	+70	0.2064	+60
0.16	0.2610	+14	0.2066	+57	0.2366	+50	0.1956	+72	0.2311	+61
0.12	0.3004	+12	0.2388	+54	0.2734	+47	0.2202	+73	0.2610	+61
0.08	0.3413	+10	0.2741	+50	0.3142	+43	0.2467	+73	0.2941	+61
0.04	0.3635	+ 7	0.2978	+46	0.3434	+40	0.2632	+73	0.3169	+60
0	0.3451	+ 6	0.2925	+42	0.3423	+36	0.2564	+71	0.3152	+57

TABLE 11

THE CALCULATED POSITION OF THE NEUTRAL POINTS

$\tau_1 = 0.15$

θ_o	φ	Position Angles of the Neutral Points		
		Babinet	Brewster	Arago
90.0°	0°	70.7°		70.7°
	10°	68.3°		68.3°
	20°	61.2°		61.2°
	30°	49.6°		49.6°
	40°	30.1°		30.1°
85.4°	0°	65.4°		73.7°
	10°	62.8°		71.3°
	20°	55.7°		64.5°
	30°	44.2°		53.6°
	40°	24.8°		34.9°
76.1°	0°	57.5°		83.1°
	10°	54.9°		80.9°
	20°	47.8°		74.7°
	30°	36.2°		64.8°
	40°	17.5°		48.7°
58.7°	0°	43.9°	76.6°	
	10°	41.5°	78.6°	
	20°	34.7°	83.3°	
	30°	24.6°		89.6°
	40°	10.4°		80.6°
	50°			66.0°;13.6°
50.1°	0°	37.8°	65.8°	
	10°	35.5°	67.4°	
	20°	29.2°	71.5°	
	30°	20.1°	76.6°	
	40°	8.89°	82.7°	
	50°		89.6°	9.07°
	60°			32.1°;77.9°

$\tau_1 = 0.10$

θ_o	φ	Position Angles of the Neutral Points		
		Babinet	Brewster	Arago
43.9°	0°	33.4°	57.5°	
	10°	31.2°	58.9°	
	20°	25.4°	62.2°	
	30°	17.3°	66.2°	
	40°	7.6	70.5°	
	50°		74.8°	6.4°
	60°		78.8°	22.1°
	70°		83.1°	41.6°
	80°		87.7°	65.8°
36.9°	0°	28.4°	47.9°	
	10°	26.6°	48.9°	
	20°	21.3°	51.6°	
	30°	14.5°	54.7°	
	40°	7.02°	57.3°	
	50°		59.3°	7.69°
	60°		60.2°	15.7°
	70°		59.5°	27.9°
	80°		55.9°	37.5°
	90°		49.5°	49.5°
19.95°	20°	13.3°	25.6°	
	30°	10.1°	27.5°	
	40°	6.69°	28.3°	
	50°		28.4°	3.14°
	60°		27.6°	6.88°
	70°		26.4°	11.0°
	80°		23.6°	15.6°
	90°		19.7°	19.7°

$\tau_1 = 0.20$

θ_o	φ	Position Angles of the Neutral Points		
		Babinet	Brewster	Arago
90.0°	0°	72.2°		72.9°
80.8°	0°	63.6°		80.8°
60.0°	0°	46.5°	75.8°	
30.7°	0°	24.9°	37.8°	
	90°		36.2°	36.2°

θ_o	φ	Position Angles of the Neutral Points		
		Babinet	Brewster	Arago
90.0°	0°	69.1°		69.1°
80.8°	0°	59.8°		76.5°
60.0°	0°	43.9°	80.1°	
30.7°	0°	25.4°	38.8°	
	90°		35.8°	35.8°

TABLE 12

SUPPLEMENTARY TABLES OF THE FUNCTIONS ψ, ϕ, χ, ζ, ξ, η, σ, θ, $X^{(1)}$, $Y^{(1)}$, $X^{(2)}$, $Y^{(2)}$, γ_t AND γ_n OBTAINED ON THE CORRECTED SECOND APPROXIMATION FOR VARIOUS VALUES OF τ_1

$\tau_1 = 0.01$; $\bar{s} = 0.00916$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_t	γ_n
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.48848	0.48961
0.010	0.00134	1.02222	1.01341	0.00062	0.00127	0.38785	0.38013	0.00062	1.01279	0.37951	1.00784	0.37513	0.68301	0.68289
0.025	0.00225	1.02749	1.01700	0.00081	0.00204	0.69680	0.68670	0.00080	1.01619	0.68590	1.00997	0.67998	0.83576	0.83494
0.050	0.00432	1.02802	1.01852	0.00089	0.00386	0.84653	0.83691	0.00089	1.01765	0.83602	1.01088	0.82944	0.91031	0.90980
0.075	0.00756	1.02569	1.01907	0.00092	0.00685	0.90110	0.89401	0.00091	1.01815	0.89309	1.01121	0.88627	0.93862	0.93756
0.1	0.01204	1.02165	1.01935	0.00093	0.01108	0.92707	0.92401	0.00093	1.01842	0.92308	1.01138	0.91613	0.95348	0.95240
0.2	0.04263	0.99138	1.01979	0.00095	0.04067	0.94439	0.97093	0.00095	1.01884	0.96998	1.01164	0.96282	0.97673	0.97561
0.3	0.09355	0.94002	1.01994	0.00096	0.09059	0.91007	0.98710	0.00096	1.01898	0.98613	1.01173	0.97891	0.98473	0.98360
0.4	0.16483	0.86789	1.02002	0.00097	0.16087	0.84706	0.99528	0.00097	1.01905	0.99431	1.01177	0.98706	0.98879	0.98765
0.5	0.25647	0.77506	1.02006	0.00097	0.25151	0.76015	1.00022	0.00097	1.01909	0.99925	1.01180	0.99198	0.99123	0.99009
0.6	0.36848	0.66156	1.02009	0.00097	0.36251	0.65093	1.00353	0.00097	1.01912	1.00256	1.01182	0.99528	0.99287	0.99173
0.7	0.50085	0.52740	1.02011	0.00097	0.49388	0.52013	1.00590	0.00097	1.01914	1.00493	1.01183	0.99763	0.99405	0.99290
0.8	0.65359	0.37258	1.02013	0.00097	0.64561	0.36808	1.00768	0.00097	1.01916	1.00671	1.01184	0.99941	0.99493	0.99378
0.9	0.82669	0.19711	1.02014	0.00097	0.81771	0.19499	1.00907	0.00097	1.01917	1.00810	1.01185	1.00079	0.99562	0.99447
1.0	1.02015	0.00098	1.02015	0.00097	1.01017	0.00097	1.01018	0.00097	1.01916	1.00921	1.01186	1.00190	0.99617	0.99502

TABLE 12 (continued)

$\tau_1 = 0.02$; $\bar{s} = 0.01904$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_1	γ_2
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.47088	0.48180
0.010	0.00186	1.02820	1.01718	0.00088	0.00175	0.15757	0.14945	0.00086	1.01650	0.14858	1.01010	0.14389	0.56010	0.56290
0.025	0.00342	1.04117	1.02571	0.00159	0.00306	0.48682	0.47500	0.00158	1.02432	0.47161	1.01526	0.46855	0.72268	0.72339
0.050	0.00590	1.04618	1.03014	0.00166	0.00506	0.71491	0.69928	0.00165	1.02847	0.69756	1.01794	0.68764	0.83455	0.83478
0.075	0.00933	1.04562	1.03187	0.00177	0.00800	0.81118	0.79694	0.00176	1.03010	0.79517	1.01899	0.78449	0.88269	0.88279
0.1	0.01395	1.04246	1.03280	0.00182	0.01215	0.86169	0.85085	0.00182	1.03096	0.84902	1.01955	0.83794	0.90920	0.90926
0.2	0.04506	1.01313	1.03425	0.00191	0.04123	0.92110	0.93874	0.00191	1.03233	0.93681	1.02044	0.92510	0.95237	0.95239
0.3	0.09668	0.96119	1.03476	0.00195	0.09085	0.90207	0.97003	0.00194	1.03280	0.96807	1.02075	0.95613	0.96773	0.96774
0.4	0.16891	0.88774	1.03502	0.00196	0.16108	0.84648	0.98606	0.00196	1.03304	0.98409	1.02090	0.97204	0.97560	0.97561
0.5	0.26176	0.79302	1.03517	0.00197	0.25192	0.76840	0.99582	0.00197	1.03319	0.99385	1.02100	0.98171	0.98039	0.98039
0.6	0.37524	0.67711	1.03528	0.00198	0.36339	0.65598	1.00257	0.00198	1.03329	1.00038	1.02106	0.98821	0.98360	0.98361
0.7	0.50935	0.54004	1.03535	0.00198	0.49550	0.52557	1.00708	0.00198	1.03336	1.00509	1.02111	0.99289	0.98591	0.98592
0.8	0.66409	0.38182	1.03541	0.00199	0.64825	0.37287	1.01065	0.00199	1.03341	1.00868	1.02114	0.99640	0.98765	0.98766
0.9	0.85947	0.20247	1.03545	0.00199	0.82161	0.19827	1.01339	0.00199	1.03345	1.01139	1.02117	0.99915	0.98901	0.98901
1.0	1.03549	0.00199	1.03549	0.00199	1.01561	0.00199	1.01561	0.00199	1.03349	1.01361	1.02119	1.00135	0.99010	0.99010

$\tau_1 = 0.03$; $\bar{s} = 0.02803$

0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.46068	0.47495
0.010	0.00209	1.03033	1.01851	0.00099	0.00194	0.07087	0.06854	0.00096	1.01753	0.06256	1.01090	0.05826	0.50922	0.51482
0.025	0.00428	1.04984	1.03102	0.00181	0.00379	0.34346	0.32858	0.00179	1.02920	0.32657	1.01850	0.31774	0.64547	0.64730
0.050	0.00727	1.05928	1.03872	0.00233	0.00610	0.60451	0.58502	0.00231	1.03637	0.58267	1.02321	0.57074	0.77273	0.77333
0.075	0.01096	1.06094	1.04195	0.00255	0.00907	0.72958	0.71044	0.00254	1.03938	0.70787	1.02519	0.69457	0.83434	0.83463
0.1	0.01575	1.05900	1.04375	0.00267	0.01313	0.79960	0.78510	0.00266	1.04103	0.78040	1.02628	0.76836	0.86993	0.87010
0.2	0.04740	1.03125	1.04660	0.00287	0.04179	0.89606	0.90658	0.00286	1.04371	0.90364	1.02804	0.88835	0.93023	0.93027
0.3	0.09966	0.97913	1.04762	0.00294	0.09104	0.89158	0.95195	0.00294	1.04465	0.94896	1.02867	0.93324	0.95237	0.95238
0.4	0.17273	0.90472	1.04815	0.00297	0.16110	0.84335	0.97548	0.00297	1.04514	0.97248	1.02899	0.95653	0.96385	0.96385
0.5	0.26664	0.80848	1.04846	0.00300	0.25199	0.76451	0.98990	0.00299	1.04543	0.98687	1.02918	0.97078	0.97087	0.97087
0.6	0.38140	0.69056	1.04868	0.00301	0.36374	0.65899	0.99965	0.00301	1.04563	0.99659	1.02932	0.98041	0.97561	0.97561
0.7	0.51703	0.55103	1.04883	0.00302	0.49636	0.52939	1.00664	0.00302	1.04578	1.00359	1.02941	0.98734	0.97902	0.97902
0.8	0.67352	0.38992	1.04895	0.00303	0.64984	0.37651	1.01198	0.00303	1.04588	1.00887	1.02948	0.99257	0.98160	0.98160
0.9	0.85089	0.20726	1.04904	0.00304	0.82418	0.20095	1.01607	0.00304	1.04597	1.01300	1.02954	0.99666	0.98361	0.98361
1.0	1.04912	0.00305	1.04911	0.00304	1.01940	0.00305	1.01989	0.00304	1.04603	1.01651	1.02958	0.99994	0.98523	0.98522

TABLE 12 (continued)

$\eta = 0.04$; $\bar{s} = 0.03673$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_t	γ_n
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.45165	0.46870
0.010	0.00222	1.03125	1.01906	0.00105	0.00202	0.03772	0.03127	0.00101	1.01802	0.03022	1.01121	0.02659	0.48476	0.49522
0.025	0.00491	1.05450	1.03411	0.00212	0.00451	0.24572	0.23057	0.00207	1.03228	0.22845	1.02057	0.21953	0.59154	0.59479
0.050	0.00845	1.06917	1.04530	0.00291	0.00700	0.51198	0.49057	0.00287	1.04236	0.48763	1.02727	0.47452	0.72133	0.72248
0.075	0.01245	1.07825	1.05020	0.00327	0.01005	0.65629	0.63578	0.00324	1.04688	0.63047	1.03029	0.61586	0.79166	0.79228
0.1	0.01745	1.07274	1.05297	0.00347	0.01409	0.74160	0.72085	0.00345	1.04942	0.71751	1.03197	0.70106	0.85419	0.85451
0.2	0.04967	1.04701	1.05754	0.00381	0.04254	0.87047	0.87492	0.00380	1.05867	0.87105	1.03482	0.85286	0.90911	0.90919
0.3	0.10254	0.99498	1.05920	0.00394	0.09121	0.87974	0.93544	0.00393	1.05520	0.92945	1.03585	0.91055	0.93748	0.93751
0.4	0.17657	0.91985	1.06005	0.00400	0.16102	0.85875	0.96118	0.00399	1.05599	0.96012	1.03638	0.94085	0.95257	0.95258
0.5	0.27125	0.82253	1.06058	0.00404	0.25187	0.76882	0.98512	0.00403	1.05647	0.97902	1.03670	0.95952	0.96154	0.96155
0.6	0.38718	0.70266	1.06093	0.00407	0.36378	0.66078	0.99595	0.00406	1.05680	0.99182	1.03692	0.97218	0.96775	0.96774
0.7	0.52418	0.56097	1.06118	0.00408	0.49676	0.55222	1.00525	0.00408	1.05703	1.00108	1.03707	0.98132	0.97223	0.97222
0.8	0.68226	0.39729	1.06137	0.00410	0.65081	0.37947	1.01224	0.00409	1.05721	1.00807	1.03719	0.98824	0.97562	0.97561
0.9	0.86142	0.21167	1.06152	0.00411	0.82594	0.20828	1.01772	0.00410	1.05734	1.01355	1.03729	0.99365	0.97827	0.97826
1.0	1.06166	0.00412	1.06164	0.00412	1.02215	0.00411	1.02214	0.00411	1.05745	1.01795	1.03736	0.99800	0.98041	0.98039

$\eta = 0.05$; $\bar{s} = 0.04518$

0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.44341	0.46291
0.010	0.00280	1.03170	1.01934	0.00109	0.00207	0.02462	0.01890	0.00108	1.01825	0.01783	1.01135	0.01440	0.47041	0.48155
0.025	0.00538	1.05788	1.03664	0.00285	0.00468	0.17901	0.16437	0.00227	1.03428	0.16201	1.02192	0.15334	0.55310	0.55801
0.050	0.00948	1.07682	1.05046	0.00341	0.00777	0.43510	0.41256	0.00335	1.04700	0.40911	1.03045	0.39535	0.67888	0.68025
0.075	0.01581	1.08587	1.05707	0.00392	0.01096	0.59088	0.56600	0.00388	1.05307	0.56201	1.03454	0.54565	0.75385	0.75480
0.1	0.01904	1.08432	1.06089	0.00422	0.01500	0.68781	0.66879	0.00419	1.05659	0.65948	1.03692	0.64157	0.80154	0.80211
0.2	0.05187	1.06101	1.06740	0.00474	0.04290	0.84485	0.84115	0.00472	1.06256	0.83951	1.04096	0.81870	0.88894	0.88908
0.3	0.10535	1.00929	1.06981	0.00495	0.09136	0.86707	0.91486	0.00492	1.06477	0.90985	1.04245	0.88820	0.92805	0.92810
0.4	0.17989	0.93562	1.07106	0.00503	0.16090	0.85815	0.95246	0.00502	1.06591	0.94782	1.04323	0.92517	0.94115	0.94117
0.5	0.27566	0.83501	1.07182	0.00509	0.25168	0.76283	0.97577	0.00508	1.06661	0.97057	1.04371	0.94809	0.95287	0.95287
0.6	0.39268	0.71380	1.07234	0.00513	0.36361	0.66168	0.99164	0.00512	1.06709	0.98659	1.04405	0.96369	0.96000	0.95999
0.7	0.53096	0.57016	1.07271	0.00516	0.49685	0.55433	1.00313	0.00515	1.06743	0.99785	1.04426	0.97499	0.96552	0.96551
0.8	0.69050	0.40415	1.07299	0.00519	0.65135	0.38191	1.01184	0.00518	1.06769	1.00654	1.04443	0.98356	0.96971	0.96969
0.9	0.87133	0.21584	1.07321	0.00520	0.82718	0.20584	1.01866	0.00519	1.06789	1.01335	1.04457	0.99027	0.97299	0.97297
1.0	1.07343	0.00523	1.07339	0.00522	1.02419	0.00518	1.02416	0.00521	1.06805	1.01883	1.04468	0.99568	0.97568	0.97561

TABLE 12 (continued)

$\tau_1 = 0.06$; $\bar{s} = 0.05339$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_l	γ_n
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.43585	0.45748
0.010	0.00237	1.03201	1.01951	0.00115	0.00209	0.01912	0.01397	0.00104	1.01889	0.01288	1.01143	0.00977	0.46017	0.47374
0.025	0.00574	1.06016	1.03816	0.00252	0.00494	0.13337	0.11949	0.00241	1.03561	0.11696	1.02282	0.10868	0.52508	0.53175
0.050	0.01087	1.08284	1.05457	0.00384	0.00842	0.37116	0.34815	0.00375	1.05065	0.34425	1.03298	0.33023	0.64232	0.64503
0.075	0.01506	1.09181	1.06287	0.00455	0.01178	0.53262	0.50614	0.00445	1.05824	0.50152	1.03814	0.48433	0.72029	0.72170
0.1	0.02054	1.09451	1.06780	0.00493	0.01586	0.63812	0.61168	0.00487	1.06275	0.60658	1.04121	0.58744	0.77173	0.77258
0.2	0.05401	1.07560	1.07640	0.00565	0.04346	0.81946	0.81434	0.00562	1.07059	0.80854	1.04657	0.78590	0.86968	0.86989
0.3	0.10806	1.02258	1.07968	0.00593	0.09151	0.85587	0.89685	0.00590	1.07354	0.89026	1.04859	0.86628	0.90906	0.90913
0.4	0.18551	0.94655	1.08155	0.00607	0.16074	0.82679	0.94048	0.00605	1.07509	0.93425	1.04964	0.90955	0.93021	0.93022
0.5	0.27993	0.84677	1.08257	0.00616	0.25151	0.76011	0.96803	0.00614	1.07604	0.96170	1.05030	0.93657	0.94339	0.94338
0.6	0.39796	0.72418	1.08308	0.00622	0.36329	0.66192	0.98685	0.00620	1.07668	0.98046	1.05074	0.95503	0.95239	0.95236
0.7	0.53743	0.57875	1.08359	0.00626	0.49671	0.53591	1.00052	0.00624	1.07714	0.99409	1.05105	0.96844	0.95892	0.95889
0.8	0.69836	0.41061	1.08398	0.00629	0.65157	0.38397	1.01090	0.00627	1.07750	1.00444	1.05130	0.97862	0.96588	0.96584
0.9	0.88074	0.21980	1.08428	0.00632	0.82789	0.20721	1.01905	0.00630	1.07777	1.01256	1.05148	0.98662	0.96778	0.96773
1.0	1.08458	0.00636	1.08452	0.00634	1.02567	0.00628	1.02562	0.00632	1.07799	1.01911	1.05164	0.99306	0.97091	0.97087

$\tau_1 = 0.07$; $\bar{s} = 0.06158$

0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.42881	0.45285
0.010	0.00242	1.03224	1.01964	0.00115	0.00210	0.01654	0.01185	0.00104	1.01850	0.01073	1.01149	0.00789	0.45178	0.46753
0.025	0.00602	1.06174	1.03921	0.00266	0.00513	0.10202	0.08899	0.00251	1.03652	0.08683	1.02844	0.07852	0.50409	0.51256
0.050	0.01116	1.08768	1.05787	0.00422	0.00899	0.31799	0.29498	0.00409	1.05355	0.29069	1.03500	0.27666	0.61186	0.61552
0.075	0.01621	1.09892	1.06781	0.00508	0.01254	0.48080	0.45330	0.00497	1.06260	0.44811	1.04119	0.43040	0.69041	0.69238
0.1	0.02195	1.10297	1.07387	0.00560	0.01667	0.59232	0.56898	0.00551	1.06810	0.55824	1.04497	0.53820	0.74443	0.74564
0.2	0.05610	1.08504	1.08467	0.00655	0.04402	0.79451	0.78554	0.00649	1.07790	0.77879	1.05173	0.75443	0.85127	0.85158
0.3	0.11072	1.03448	1.08885	0.00691	0.09167	0.84030	0.87795	0.00688	1.08168	0.87082	1.05433	0.84476	0.89548	0.89558
0.4	0.18664	0.95814	1.09100	0.00711	0.16056	0.81990	0.92856	0.00707	1.08364	0.92103	1.05569	0.89407	0.91950	0.91953
0.5	0.28406	0.85777	1.09285	0.00723	0.25093	0.75750	0.96000	0.00720	1.08486	0.95254	1.05653	0.92501	0.93457	0.93456
0.6	0.40306	0.73392	1.09326	0.00731	0.36286	0.66162	0.98170	0.00728	1.08570	0.97416	1.05711	0.94625	0.94489	0.94486
0.7	0.54366	0.58686	1.09393	0.00737	0.49689	0.53705	0.99751	0.00734	1.08630	0.98991	1.05752	0.96172	0.95241	0.95237
0.8	0.70589	0.41673	1.09443	0.00741	0.65153	0.38571	1.00954	0.00739	1.08675	1.00189	1.05784	0.97349	0.95812	0.95807
0.9	0.88974	0.22859	1.09485	0.00745	0.82830	0.20890	1.01900	0.00742	1.08711	1.01181	1.05808	0.98275	0.96262	0.96256
1.0	1.09523	0.00751	1.09514	0.00748	1.02671	0.00737	1.02663	0.00745	1.08739	1.01891	1.05828	0.99022	0.96624	0.96618

TABLE 12 (continued)

$\tau_1 = 0.08$; $\bar{s} = 0.06918$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_ℓ	γ_n
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.42222	0.44746
0.010	0.00248	1.02243	1.01974	0.00118	0.00212	0.01514	0.01081	0.00105	1.01858	0.00967	1.01154	0.00705	0.44436	0.46207
0.025	0.00626	1.06288	1.03997	0.00278	0.00527	0.03840	0.06821	0.00259	1.03716	0.06544	1.02387	0.05810	0.48788	0.49813
0.050	0.01184	1.09149	1.06055	0.00456	0.00947	0.27377	0.25107	0.00438	1.05588	0.24644	1.03663	0.23258	0.58598	0.59067
0.075	0.01726	1.10495	1.07206	0.00558	0.01322	0.43476	0.40668	0.00543	1.06680	0.40096	1.04381	0.38299	0.66874	0.66655
0.1	0.02327	1.11054	1.07928	0.00628	0.01743	0.55019	0.52050	0.00610	1.07278	0.51409	1.04830	0.49342	0.71941	0.72102
0.2	0.05812	1.09550	1.09281	0.00742	0.04458	0.77011	0.75777	0.00735	1.08460	0.75009	1.05649	0.72428	0.83566	0.83408
0.3	0.11332	1.04566	1.09742	0.00790	0.09183	0.82663	0.85989	0.00784	1.08921	0.85170	1.05970	0.82383	0.88232	0.88246
0.4	0.18989	0.96921	1.10014	0.00815	0.16037	0.81259	0.91618	0.00810	1.09166	0.90773	1.06141	0.87874	0.90904	0.90908
0.5	0.28809	0.86813	1.10183	0.00830	0.25050	0.75403	0.95177	0.00826	1.09318	0.94315	1.06246	0.91347	0.92591	0.92590
0.6	0.40801	0.74314	1.10298	0.00841	0.36234	0.66089	0.97628	0.00837	1.09421	0.96755	1.06318	0.93740	0.93751	0.93747
0.7	0.54969	0.59456	1.10381	0.00849	0.49592	0.53780	0.99419	0.00845	1.09496	0.98538	1.06371	0.95488	0.94598	0.94592
0.8	0.71315	0.42257	1.10444	0.00855	0.65129	0.38719	1.00784	0.00851	1.09553	0.99897	1.06410	0.96821	0.95243	0.95236
0.9	0.89840	0.22726	1.10494	0.00859	0.82844	0.21046	1.01859	0.00855	1.09597	1.00967	1.06441	0.97870	0.95751	0.95743
1.0	1.10546	0.00868	1.10533	0.00863	1.02739	0.00848	1.02727	0.00859	1.09633	1.01832	1.06466	0.98719	0.96161	0.96153

$\tau_1 = 0.09$; $\bar{s} = 0.07678$

0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.41601	0.44280
0.010	0.00253	1.03260	1.01984	0.00120	0.00212	0.01423	0.01020	0.00105	1.01866	0.00905	1.01158	0.00661	0.43756	0.45704
0.025	0.00645	1.06375	1.04054	0.00287	0.00537	0.06588	0.05898	0.00264	1.03768	0.05113	1.02419	0.04423	0.47496	0.48694
0.050	0.01245	1.09461	1.06275	0.00485	0.00987	0.23699	0.21480	0.00462	1.05776	0.20987	1.03796	0.19651	0.56385	0.56968
0.075	0.01823	1.11010	1.07572	0.00605	0.01384	0.39387	0.36556	0.00585	1.06946	0.35935	1.04606	0.34130	0.63987	0.64314
0.1	0.02452	1.11718	1.08399	0.00682	0.01815	0.51147	0.48083	0.00665	1.07690	0.47579	1.05124	0.45270	0.69644	0.69850
0.2	0.06009	1.10510	1.09941	0.00828	0.04514	0.74652	0.73104	0.00817	1.09076	0.72243	1.06092	0.69540	0.81681	0.81736
0.3	0.11587	1.05611	1.10554	0.00887	0.09200	0.81282	0.84205	0.00879	1.09626	0.83281	1.06477	0.80334	0.86954	0.86978
0.4	0.19307	0.97961	1.10883	0.00918	0.16017	0.80497	0.90898	0.00912	1.09921	0.89441	1.06684	0.86360	0.89882	0.89888
0.5	0.29202	0.87791	1.11088	0.00938	0.25004	0.75087	0.94339	0.00932	1.10104	0.93560	1.06812	0.90196	0.91741	0.91740
0.6	0.41282	0.75187	1.11227	0.00952	0.36175	0.65979	0.97064	0.00946	1.10230	0.96071	1.06900	0.92850	0.93025	0.93020
0.7	0.55553	0.60189	1.11329	0.00962	0.49585	0.53826	0.99060	0.00956	1.10320	0.98057	1.06964	0.94794	0.93964	0.93957
0.8	0.72018	0.42815	1.11406	0.00969	0.65087	0.38846	1.00584	0.00964	1.10389	0.99574	1.07012	0.96280	0.94681	0.94672
0.9	0.90677	0.23078	1.11467	0.00975	0.82833	0.21192	1.01787	0.00970	1.10443	1.00770	1.07050	0.97451	0.95247	0.95237
1.0	1.11532	0.00985	1.11516	0.00980	1.02775	0.00960	1.02759	0.00974	1.10487	1.01738	1.07081	0.98399	0.95704	0.95693

TABLE 12 (continued)

$\tau_1 = 0.10$; $\bar{s} = 0.08420$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_1	γ_2
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.41014	0.43852
0.010	0.00257	1.03275	1.01993	0.00128	0.00213	0.01357	0.00978	0.00106	1.01872	0.00862	1.01162	0.00633	0.43120	0.45228
0.025	0.00662	1.06438	1.04097	0.00295	0.00544	0.05486	0.04118	0.00268	1.03798	0.04127	1.02442	0.03478	0.46433	0.47795
0.050	0.01299	1.09717	1.06456	0.00511	0.01022	0.20687	0.16482	0.00482	1.05929	0.17965	1.03905	0.16643	0.54480	0.55170
0.075	0.01912	1.11452	1.07890	0.00648	0.01440	0.35756	0.32928	0.00622	1.07217	0.32262	1.04800	0.30463	0.61845	0.62244
0.10	0.02570	1.12305	1.08823	0.00738	0.01882	0.47591	0.44465	0.00716	1.08053	0.43702	1.05385	0.41569	0.67530	0.67785
0.15	0.04155	1.12491	1.09951	0.00848	0.03006	0.63291	0.60403	0.00851	1.09062	0.59520	1.06093	0.56966	0.75233	0.75358
0.2	0.06201	1.11896	1.10602	0.00912	0.04570	0.72318	0.70533	0.00898	1.09645	0.69581	1.06503	0.66776	0.80069	0.80138
0.3	0.11886	1.06591	1.11322	0.00983	0.09217	0.79897	0.82453	0.00972	1.10288	0.81424	1.06956	0.78335	0.85714	0.85738
0.4	0.19619	0.98943	1.11711	0.01022	0.15998	0.79709	0.89182	0.01013	1.10634	0.88111	1.07201	0.84867	0.88883	0.88890
0.5	0.29586	0.88720	1.11954	0.01046	0.24956	0.74640	0.93490	0.01038	1.10851	0.92393	1.07354	0.89051	0.90907	0.90905
0.6	0.41752	0.76021	1.12121	0.01063	0.36110	0.65858	0.96482	0.01055	1.10999	0.95367	1.07459	0.91958	0.92310	0.92308
0.7	0.56122	0.60891	1.12242	0.01075	0.49467	0.53845	0.98679	0.01068	1.11107	0.97552	1.07535	0.94093	0.93339	0.93330
0.8	0.72700	0.43354	1.12334	0.01085	0.65030	0.38952	1.00360	0.01077	1.11189	0.99224	1.07592	0.95728	0.94127	0.94115
0.9	0.91488	0.23422	1.12406	0.01092	0.82803	0.21326	1.01689	0.01085	1.11253	1.00545	1.07638	0.97020	0.94748	0.94735
1.0	1.12487	0.01104	1.12465	0.01098	1.02785	0.01072	1.02765	0.01090	1.11305	1.01615	1.07674	0.98066	0.95251	0.95237

$\tau_1 = 0.11$; $\bar{s} = 0.09146$

0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.40455	0.43402
0.010	0.00262	1.03288	1.02001	0.00125	0.00214	0.01304	0.00946	0.00106	1.01879	0.00828	1.01166	0.00612	0.42519	0.44774
0.025	0.00677	1.06489	1.04152	0.00303	0.00550	0.04741	0.03758	0.00270	1.03826	0.03441	1.02460	0.02851	0.45551	0.47049
0.050	0.01348	1.09928	1.06608	0.00534	0.01051	0.18086	0.16002	0.00500	1.06055	0.15460	1.03994	0.14182	0.52829	0.53633
0.075	0.01995	1.11834	1.08167	0.00687	0.01491	0.32532	0.29728	0.00656	1.07450	0.29021	1.04968	0.27239	0.59916	0.60391
0.10	0.02680	1.12825	1.09203	0.00790	0.01944	0.44328	0.41166	0.00762	1.08375	0.40347	1.05618	0.38204	0.65583	0.65890
0.15	0.04309	1.13198	1.10475	0.00918	0.03072	0.60493	0.57464	0.00896	1.09508	0.56505	1.06418	0.53897	0.73470	0.73622
0.2	0.06387	1.12215	1.11220	0.00994	0.04625	0.70071	0.68064	0.00976	1.10171	0.67021	1.06887	0.64132	0.78523	0.78608
0.3	0.12081	1.07511	1.12051	0.01079	0.09235	0.78515	0.80734	0.01065	1.10909	0.79599	1.07410	0.76387	0.84508	0.84539
0.4	0.19924	0.99873	1.12503	0.01125	0.15978	0.78901	0.87971	0.01113	1.11310	0.86786	1.07694	0.83395	0.87905	0.87914
0.5	0.29962	0.89605	1.12786	0.01155	0.24907	0.74215	0.92685	0.01144	1.11562	0.91418	1.07873	0.87914	0.90087	0.90085
0.6	0.42210	0.76818	1.12981	0.01175	0.36042	0.65668	0.95886	0.01165	1.11734	0.94647	1.07995	0.91066	0.91605	0.91598
0.7	0.56676	0.61565	1.13125	0.01190	0.49392	0.53839	0.98280	0.01180	1.11860	0.97026	1.08085	0.93388	0.92722	0.92710
0.8	0.73364	0.43872	1.13231	0.01201	0.64962	0.39038	1.00116	0.01192	1.11955	0.98851	1.08153	0.95169	0.93578	0.93564
0.9	0.92276	0.23755	1.13316	0.01210	0.82756	0.21448	1.01569	0.01201	1.12030	1.00295	1.08206	0.96578	0.94254	0.94238
1.0	1.13413	0.01224	1.13385	0.01217	1.02774	0.01180	1.02747	0.01208	1.12091	1.01465	1.08249	0.97721	0.94802	0.94785

TABLE 12 (continued)

$\zeta = 0.12$; $\bar{s} = 0.09855$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_ℓ	γ_n
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.39923	0.42987
0.010	0.00266	1.03301	1.02009	0.00127	0.00214	0.01260	0.00918	0.00106	1.01884	0.00800	1.01169	0.00595	0.41950	0.44338
0.025	0.00691	1.06551	1.04161	0.00309	0.00554	0.04198	0.03257	0.00272	1.03847	0.02955	1.02475	0.02382	0.44741	0.46408
0.050	0.01391	1.10103	1.06735	0.00555	0.01076	0.15958	0.13950	0.00514	1.06159	0.13387	1.04068	0.12153	0.51388	0.52805
0.075	0.02071	1.12164	1.08409	0.00723	0.01586	0.29671	0.26904	0.00685	1.07652	0.26159	1.05115	0.24404	0.56175	0.56729
0.10	0.02785	1.13287	1.09545	0.00840	0.02002	0.41334	0.38158	0.00805	1.08661	0.37286	1.05827	0.35146	0.60786	0.61149
0.15	0.04457	1.13845	1.10960	0.00986	0.03185	0.57835	0.54692	0.00959	1.09916	0.53659	1.06716	0.51012	0.71803	0.71985
0.2	0.06569	1.12975	1.11799	0.01074	0.04679	0.67894	0.65692	0.01051	1.10659	0.64561	1.07245	0.61602	0.77043	0.77146
0.3	0.12521	1.08377	1.12744	0.01174	0.09254	0.77142	0.79050	0.01156	1.11495	0.77810	1.07840	0.74488	0.83339	0.83375
0.4	0.20225	1.00757	1.13261	0.01228	0.15959	0.78079	0.86769	0.01213	1.11952	0.85469	1.08166	0.81946	0.86950	0.86961
0.5	0.30331	0.90449	1.13587	0.01268	0.24855	0.73769	0.91775	0.01249	1.12239	0.90437	1.08372	0.86785	0.89284	0.89281
0.6	0.42659	0.77582	1.13811	0.01287	0.35968	0.65477	0.95278	0.01274	1.12437	0.93915	1.08513	0.90174	0.90913	0.90903
0.7	0.57218	0.62214	1.13975	0.01305	0.49309	0.53815	0.97866	0.01292	1.12581	0.96484	1.08616	0.92678	0.92114	0.92100
0.8	0.74012	0.44375	1.14100	0.01318	0.64882	0.39113	0.99854	0.01306	1.12691	0.98458	1.08694	0.94603	0.93057	0.93019
0.9	0.93044	0.24082	1.14198	0.01329	0.82692	0.21566	1.01429	0.01317	1.12777	1.00022	1.08756	0.96127	0.93767	0.93747
1.0	1.14315	0.01348	1.14278	0.01338	1.02740	0.01294	1.02708	0.01325	1.12847	1.01293	1.08806	0.97366	0.94360	0.94338

$\zeta = 0.13$; $\bar{s} = 0.1055$

0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.39414	0.42586
0.010	0.00270	1.03312	1.02016	0.00129	0.00215	0.01221	0.00894	0.00106	1.01890	0.00775	1.01172	0.00580	0.41407	0.43918
0.025	0.00703	1.06567	1.04185	0.00315	0.00557	0.03819	0.02924	0.00274	1.03866	0.02618	1.02487	0.02074	0.44044	0.45846
0.050	0.01431	1.10249	1.06842	0.00574	0.01097	0.14180	0.12248	0.00526	1.06245	0.11668	1.04130	0.10480	0.50119	0.51149
0.075	0.02151	1.12442	1.08630	0.00759	0.01588	0.26459	0.24092	0.00715	1.07827	0.23299	1.05242	0.21741	0.56338	0.57102
0.10	0.02888	1.13698	1.09852	0.00886	0.02056	0.38587	0.35415	0.00845	1.08915	0.34493	1.06013	0.32365	0.62125	0.62546
0.15	0.04599	1.14438	1.11408	0.01052	0.03197	0.55311	0.52079	0.01018	1.10290	0.50973	1.06992	0.48299	0.70224	0.70438
0.2	0.06746	1.13682	1.12843	0.01152	0.04752	0.65787	0.63416	0.01124	1.11114	0.62199	1.07580	0.59182	0.75623	0.75745
0.3	0.12556	1.09196	1.13404	0.01267	0.09278	0.75778	0.77400	0.01245	1.12048	0.76056	1.08249	0.72689	0.82201	0.82245
0.4	0.20520	1.01598	1.13989	0.01331	0.15989	0.77245	0.85576	0.01312	1.12562	0.84162	1.08618	0.80519	0.86015	0.86028
0.5	0.30693	0.91258	1.14359	0.01372	0.24803	0.73302	0.90912	0.01354	1.12887	0.89454	1.08851	0.85666	0.88493	0.88490
0.6	0.43100	0.78517	1.14614	0.01400	0.35892	0.65264	0.94661	0.01383	1.13111	0.93172	1.09012	0.89285	0.90230	0.90218
0.7	0.57748	0.62841	1.14801	0.01421	0.49220	0.53770	0.97457	0.01405	1.13275	0.95927	1.09130	0.91966	0.91514	0.91497
0.8	0.74644	0.44865	1.14944	0.01436	0.64793	0.39172	0.99574	0.01421	1.13399	0.98048	1.09219	0.94051	0.92502	0.92480
0.9	0.93792	0.24408	1.15057	0.01449	0.82615	0.21673	1.01271	0.01433	1.13498	0.99731	1.09290	0.95669	0.93284	0.93261
1.0	1.15192	0.01474	1.15148	0.01459	1.02689	0.01404	1.02649	0.01443	1.13577	1.01100	1.09347	0.97002	0.93920	0.93895

TABLE 12 (continued)

$\tau_1 = 0.14$; $\bar{s} = 0.1123$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_e	γ_n
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.38926	0.42198
0.010	0.00274	1.03523	1.02023	0.00151	0.00215	0.01186	0.00873	0.00107	1.01894	0.00752	1.01176	0.00566	0.40888	0.43512
0.025	0.00715	1.06597	1.04207	0.00321	0.00559	0.03532	0.02681	0.00275	1.03881	0.02371	1.02497	0.01855	0.43407	0.45336
0.050	0.01467	1.10373	1.06934	0.00592	0.01115	0.12694	0.10837	0.00536	1.06818	0.10241	1.04182	0.09098	0.48995	0.50136
0.075	0.02208	1.12702	1.08811	0.00789	0.01614	0.24873	0.22212	0.00735	1.07980	0.21400	1.05354	0.19713	0.55165	0.55882
0.10	0.02976	1.14066	1.10130	0.00950	0.02106	0.36069	0.32915	0.00882	1.09145	0.31946	1.06161	0.29857	0.60587	0.61067
0.15	0.04736	1.14982	1.11824	0.01115	0.03256	0.52916	0.49615	0.01074	1.10633	0.48440	1.07246	0.45750	0.68729	0.68976
0.2	0.06917	1.14340	1.12854	0.01229	0.04785	0.63749	0.61252	0.01194	1.11537	0.59930	1.07894	0.56869	0.74261	0.74403
0.3	0.12787	1.09969	1.14034	0.01360	0.09293	0.74427	0.75787	0.01332	1.12571	0.74339	1.08638	0.70838	0.81096	0.81148
0.4	0.20809	1.02400	1.14688	0.01433	0.15921	0.76402	0.84396	0.01410	1.13144	0.82867	1.09051	0.79117	0.85100	0.85115
0.5	0.31049	0.92033	1.15104	0.01480	0.24751	0.72818	0.90049	0.01459	1.13507	0.88469	1.09313	0.84558	0.87717	0.87714
0.6	0.43532	0.79027	1.15394	0.01512	0.35816	0.65024	0.94033	0.01494	1.13761	0.92417	1.09497	0.88397	0.89557	0.89544
0.7	0.58267	0.63445	1.15603	0.01536	0.49127	0.53708	0.96998	0.01517	1.13942	0.95357	1.09627	0.91252	0.90922	0.90901
0.8	0.75265	0.45335	1.15765	0.01555	0.64697	0.39216	0.99282	0.01536	1.14082	0.97622	1.09729	0.93455	0.91973	0.91948
0.9	0.94522	0.24715	1.15892	0.01570	0.82528	0.21771	1.01097	0.01551	1.14193	0.99423	1.09808	0.95205	0.92807	0.92779
1.0	1.16048	0.01599	1.15995	0.01582	1.02623	0.01511	1.02574	0.01562	1.14282	1.00888	1.09873	0.96630	0.93485	0.93455

$\tau_1 = 0.15$; $\bar{s} = 0.1190$

0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.38458	0.41822
0.010	0.00278	1.03552	1.02029	0.00155	0.00216	0.01156	0.00853	0.00107	1.01899	0.00732	1.01179	0.00554	0.40391	0.43120
0.025	0.00726	1.06624	1.04226	0.00326	0.00561	0.03314	0.02502	0.00276	1.03895	0.02190	1.02506	0.01698	0.42819	0.44867
0.050	0.01500	1.10477	1.07014	0.00607	0.01130	0.11448	0.09664	0.00545	1.06379	0.09054	1.04227	0.07955	0.47990	0.49240
0.075	0.02269	1.12921	1.08979	0.00818	0.01647	0.22868	0.20269	0.00757	1.08113	0.19428	1.05452	0.17781	0.53860	0.54659
0.10	0.03064	1.14395	1.10382	0.00972	0.02153	0.33760	0.30635	0.00915	1.09346	0.29622	1.06332	0.27538	0.59160	0.59701
0.15	0.04868	1.15482	1.12211	0.01176	0.03312	0.50645	0.47298	0.01128	1.10949	0.46051	1.07481	0.43353	0.67811	0.67594
0.2	0.07085	1.14953	1.13335	0.01303	0.04836	0.61781	0.59138	0.01262	1.11932	0.57753	1.08189	0.54657	0.72955	0.73118
0.3	0.13014	1.10702	1.14635	0.01451	0.09313	0.73093	0.74211	0.01418	1.13066	0.72659	1.09009	0.69086	0.80022	0.80082
0.4	0.21095	1.03164	1.15362	0.01534	0.15903	0.75554	0.83229	0.01506	1.13699	0.81584	1.09467	0.77737	0.84205	0.84223
0.5	0.31399	0.92775	1.15825	0.01588	0.24698	0.72322	0.89187	0.01562	1.14102	0.87484	1.09759	0.83460	0.86955	0.86951
0.6	0.43956	0.79704	1.16147	0.01625	0.35734	0.64784	0.93407	0.01601	1.14381	0.91664	1.09961	0.87517	0.88895	0.88880
0.7	0.58777	0.64029	1.16388	0.01653	0.49030	0.53633	0.96549	0.01629	1.14585	0.94776	1.10110	0.90588	0.90337	0.90314
0.8	0.75870	0.45793	1.16563	0.01674	0.64593	0.39251	0.98978	0.01651	1.14742	0.97183	1.10223	0.92875	0.91450	0.91422
0.9	0.95289	0.25020	1.16706	0.01691	0.82430	0.21866	1.00911	0.01668	1.14865	0.99098	1.10312	0.94735	0.92335	0.92303
1.0	1.16887	0.01724	1.16822	0.01705	1.02544	0.01621	1.02485	0.01681	1.14965	1.00659	1.10385	0.96251	0.93055	0.93020

TABLE 12 (continued)

$\tau_1 = 0.16$; $\bar{s} = 0.1255$

μ	ψ	Φ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_l	γ
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.38009	0.41457
0.010	0.00282	1.03841	1.02036	0.00135	0.00216	0.01128	0.00855	0.00107	1.01903	0.00713	1.01181	0.00543	0.39914	0.42739
0.025	0.00737	1.06648	1.04244	0.00331	0.00563	0.03145	0.02368	0.00277	1.03907	0.02053	1.02514	0.01584	0.42270	0.44429
0.050	0.01530	1.10567	1.07083	0.00622	0.01143	0.10402	0.08688	0.00552	1.06451	0.08065	1.04264	0.07009	0.47087	0.48441
0.075	0.02327	1.15114	1.09127	0.00845	0.01676	0.21085	0.18553	0.00775	1.08250	0.17684	1.05539	0.16079	0.52667	0.53548
0.10	0.03148	1.14690	1.10611	0.01012	0.02195	0.31642	0.28555	0.00946	1.09529	0.27501	1.06468	0.25447	0.57854	0.58438
0.15	0.04996	1.15943	1.12571	0.01235	0.03366	0.48492	0.45105	0.01179	1.11239	0.43798	1.07699	0.41101	0.65966	0.66284
0.2	0.07248	1.15527	1.13790	0.01376	0.04886	0.59880	0.57150	0.01327	1.12301	0.55664	1.08467	0.52543	0.71700	0.71885
0.3	0.13236	1.11897	1.15211	0.01541	0.09334	0.71775	0.72670	0.01502	1.13536	0.71017	1.09362	0.67381	0.78978	0.79046
0.4	0.21375	1.08896	1.16011	0.01635	0.15885	0.74701	0.82075	0.01602	1.14229	0.80516	1.09866	0.76382	0.83330	0.83350
0.5	0.31745	0.93490	1.16523	0.01696	0.24644	0.71812	0.88527	0.01665	1.14673	0.86502	1.10189	0.82375	0.86206	0.86201
0.6	0.44372	0.80361	1.16880	0.01738	0.35652	0.64520	0.92775	0.01709	1.14980	0.90901	1.10413	0.86639	0.88243	0.88225
0.7	0.59276	0.64596	1.17141	0.01769	0.48927	0.53542	0.96092	0.01742	1.15206	0.94186	1.10578	0.89824	0.89761	0.89733
0.8	0.76468	0.46239	1.17342	0.01794	0.64482	0.39272	0.98662	0.01766	1.15379	0.96751	1.10704	0.92292	0.90935	0.90901
0.9	0.95939	0.25819	1.17502	0.01813	0.82321	0.21950	1.00711	0.01785	1.15516	0.98760	1.10805	0.94260	0.91869	0.91851
1.0	1.17704	0.01851	1.17651	0.01829	1.02448	0.01726	1.02381	0.01801	1.15626	1.00416	1.10884	0.95866	0.92630	0.92589

$\tau_1 = 0.17$; $\bar{s} = 0.1319$

0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.37575	0.41102
0.010	0.00286	1.03350	1.02042	0.00136	0.00216	0.01103	0.00819	0.00107	1.01907	0.00696	1.01184	0.00532	0.39454	0.42369
0.025	0.00747	1.06670	1.04260	0.00336	0.00564	0.03012	0.02265	0.00277	1.03918	0.01947	1.02522	0.01499	0.41752	0.44015
0.050	0.01559	1.10644	1.07143	0.00636	0.01154	0.09521	0.07875	0.00558	1.06476	0.07240	1.04297	0.06226	0.46267	0.47723
0.075	0.02380	1.15283	1.09260	0.00871	0.01702	0.19501	0.17035	0.00792	1.08333	0.16141	1.05615	0.14580	0.51571	0.52584
0.10	0.03227	1.14956	1.10819	0.01049	0.02235	0.29700	0.26659	0.00974	1.09693	0.25565	1.06591	0.23545	0.56599	0.57266
0.15	0.05119	1.16367	1.12907	0.01292	0.03418	0.46452	0.43043	0.01227	1.11508	0.41674	1.07901	0.38984	0.64688	0.65044
0.2	0.07406	1.16068	1.14219	0.01447	0.04935	0.58047	0.55206	0.01390	1.12646	0.53661	1.08727	0.50521	0.70494	0.70702
0.3	0.13455	1.12056	1.15763	0.01650	0.09355	0.70476	0.71166	0.01585	1.13982	0.69411	1.09700	0.65721	0.77961	0.78039
0.4	0.21652	1.04596	1.16638	0.01735	0.15869	0.73848	0.80935	0.01696	1.14737	0.79062	1.10251	0.75050	0.82472	0.82495
0.5	0.32085	0.94177	1.17200	0.01803	0.24592	0.71293	0.87471	0.01767	1.15221	0.85522	1.10604	0.81301	0.85469	0.85465
0.6	0.44783	0.80996	1.17592	0.01851	0.35569	0.64246	0.92136	0.01817	1.15558	0.90134	1.10851	0.85766	0.87600	0.87580
0.7	0.59769	0.65145	1.17881	0.01886	0.48824	0.53440	0.95628	0.01853	1.15806	0.93588	1.11032	0.89110	0.89192	0.89160
0.8	0.77049	0.46675	1.18103	0.01914	0.64368	0.39286	0.98337	0.01881	1.15996	0.96269	1.11171	0.91707	0.90424	0.90386
0.9	0.96629	0.25615	1.18278	0.01936	0.82207	0.22052	1.00500	0.01905	1.16146	0.98410	1.11281	0.93781	0.91407	0.91364
1.0	1.18511	0.01979	1.18421	0.01954	1.02346	0.01854	1.02266	0.01920	1.16267	1.00158	1.11370	0.95475	0.92208	0.92161

TABLE 12 (continued)

$\tau_c = 0.18$; $\bar{s} = 0.1582$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_ℓ	γ_k
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.37157	0.40757
0.010	0.00289	1.03858	1.02047	0.00138	0.00217	0.01080	0.00804	0.00107	1.01911	0.00680	1.01187	0.00522	0.39012	0.42010
0.025	0.00757	1.06690	1.04276	0.00341	0.00565	0.02904	0.02184	0.00278	1.03928	0.01864	1.02529	0.01435	0.41260	0.43619
0.050	0.01586	1.10711	1.07197	0.00648	0.01168	0.08779	0.07195	0.00568	1.06515	0.06550	1.04325	0.05575	0.45519	0.47072
0.075	0.02431	1.13433	1.09380	0.00895	0.01726	0.18090	0.15693	0.00807	1.08423	0.14776	1.05683	0.13258	0.50564	0.51608
0.10	0.03302	1.15195	1.11010	0.01085	0.02271	0.27920	0.24929	0.01000	1.09841	0.23798	1.06702	0.21815	0.55448	0.56178
0.15	0.05257	1.16760	1.13220	0.01347	0.03467	0.44520	0.41100	0.01273	1.11755	0.39671	1.08089	0.36994	0.63474	0.63869
0.2	0.07561	1.16565	1.14626	0.01516	0.04982	0.56279	0.53362	0.01451	1.12969	0.51739	1.08972	0.48589	0.69336	0.69568
0.3	0.13669	1.12683	1.16293	0.01718	0.09376	0.69197	0.69698	0.01666	1.14405	0.67843	1.10022	0.64107	0.76973	0.77060
0.4	0.21923	1.05267	1.17243	0.01855	0.15852	0.72995	0.79811	0.01789	1.15222	0.77823	1.10620	0.73743	0.81632	0.81659
0.5	0.32416	0.94839	1.17857	0.01910	0.24539	0.70765	0.86619	0.01869	1.15748	0.84546	1.11006	0.80239	0.84746	0.84741
0.6	0.45187	0.81610	1.18285	0.01964	0.35485	0.68958	0.91496	0.01925	1.16115	0.89365	1.11275	0.84898	0.86967	0.86944
0.7	0.60252	0.65679	1.18602	0.02003	0.48717	0.53525	0.95157	0.01965	1.16385	0.92983	1.11474	0.88398	0.88630	0.88595
0.8	0.77622	0.47099	1.18845	0.02034	0.64248	0.39289	0.98005	0.01996	1.16592	0.95797	1.11626	0.91121	0.89920	0.89877
0.9	0.97302	0.25902	1.19038	0.02058	0.82084	0.22106	1.00279	0.02021	1.16756	0.98047	1.11747	0.93299	0.90950	0.90901
1.0	1.19297	0.02108	1.19196	0.02078	1.02252	0.01939	1.02139	0.02040	1.16889	0.99887	1.11844	0.95080	0.91791	0.91738

$\tau_c = 0.19$; $\bar{s} = 0.1443$

0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.36755	0.40421
0.010	0.00293	1.03865	1.02058	0.00140	0.00217	0.01059	0.00790	0.00107	1.01915	0.00666	1.01189	0.00513	0.38585	0.41660
0.025	0.00766	1.06708	1.04290	0.00346	0.00566	0.02815	0.02118	0.00278	1.03938	0.01796	1.02536	0.01384	0.40791	0.43240
0.050	0.01611	1.10769	1.07245	0.00660	0.01170	0.08151	0.06625	0.00567	1.06549	0.05972	1.04350	0.05034	0.44851	0.46478
0.075	0.02479	1.13565	1.09487	0.00918	0.01747	0.16885	0.14506	0.00820	1.08504	0.13568	1.05743	0.12093	0.49634	0.50757
0.10	0.03368	1.15417	1.11179	0.01117	0.02296	0.26671	0.23530	0.01021	1.09974	0.22001	1.06803	0.20052	0.54511	0.55235
0.15	0.05352	1.17122	1.13513	0.01400	0.03514	0.42690	0.39270	0.01316	1.11984	0.37783	1.08263	0.35124	0.62519	0.62753
0.2	0.07711	1.17036	1.15010	0.01585	0.05029	0.54574	0.51595	0.01509	1.13272	0.49897	1.09204	0.46744	0.68221	0.68478
0.3	0.13879	1.13280	1.16801	0.01805	0.09397	0.67938	0.68266	0.01745	1.14808	0.66811	1.10330	0.62538	0.76011	0.76108
0.4	0.22191	1.05911	1.17829	0.01933	0.15856	0.72142	0.78703	0.01881	1.15688	0.76601	1.10976	0.72459	0.80810	0.80840
0.5	0.32745	0.95478	1.18495	0.02017	0.24485	0.70229	0.85771	0.01969	1.16256	0.83575	1.11395	0.79190	0.84035	0.84029
0.6	0.45584	0.82205	1.18961	0.02076	0.35399	0.68660	0.90856	0.02031	1.16653	0.88593	1.11687	0.84037	0.86843	0.86817
0.7	0.60727	0.66198	1.19306	0.02120	0.48607	0.53200	0.94682	0.02076	1.16946	0.92372	1.11905	0.87687	0.88075	0.88036
0.8	0.78185	0.47514	1.19571	0.02155	0.64122	0.39285	0.97662	0.02111	1.17171	0.95316	1.12069	0.90533	0.89122	0.89373
0.9	0.97964	0.26188	1.19783	0.02182	0.81953	0.22174	1.00048	0.02138	1.17350	0.97674	1.12201	0.92813	0.90498	0.90443
1.0	1.20069	0.02240	1.19955	0.02204	1.02106	0.02041	1.02001	0.02160	1.17494	0.99605	1.12308	0.94679	0.91378	0.91318

TABLE 12 (continued)

$\zeta = 0.20$; $\bar{s} = 0.1504$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_1	γ_2
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.36862	0.40093
0.025	0.00775	1.06725	1.04304	0.00350	0.00566	0.02739	0.02068	0.00278	1.03947	0.01739	1.02542	0.01342	0.40341	0.42874
0.050	0.01684	1.10821	1.07288	0.00672	0.01176	0.07619	0.06147	0.00570	1.06578	0.03485	1.04372	0.04583	0.44194	0.45930
0.075	0.02524	1.13683	1.09584	0.00939	0.01765	0.15717	0.13454	0.00851	1.08575	0.12496	1.05797	0.11065	0.48772	0.49975
0.10	0.03442	1.15605	1.11844	0.01151	0.02336	0.24788	0.21909	0.01045	1.10094	0.20712	1.06895	0.18808	0.53366	0.54222
0.15	0.05468	1.17458	1.13788	0.01451	0.03559	0.40957	0.37545	0.01357	1.12196	0.36002	1.08425	0.33365	0.61220	0.61693
0.2	0.07657	1.17478	1.15375	0.01649	0.05078	0.52934	0.49908	0.01565	1.13556	0.48129	1.09422	0.44978	0.67150	0.67432
0.3	0.14086	1.15849	1.17289	0.01890	0.09418	0.66700	0.66869	0.01822	1.15192	0.64816	1.10625	0.61011	0.75075	0.75185
0.4	0.22455	1.06529	1.18395	0.02051	0.15821	0.71292	0.77611	0.01971	1.16134	0.75395	1.11320	0.71198	0.80005	0.80088
0.5	0.33070	0.96095	1.19114	0.02124	0.24432	0.69687	0.84930	0.02069	1.16745	0.82609	1.11771	0.78153	0.83336	0.83329
0.6	0.45976	0.82781	1.19619	0.02189	0.35513	0.63353	0.90215	0.02137	1.17173	0.87821	1.12087	0.83181	0.85729	0.85699
0.7	0.61196	0.66702	1.19995	0.02238	0.48495	0.53065	0.94202	0.02187	1.17489	0.91756	1.12321	0.86979	0.87528	0.87484
0.8	0.78741	0.47919	1.20281	0.02276	0.63992	0.39269	0.97515	0.02225	1.17733	0.94828	1.12501	0.89945	0.88929	0.88875
0.9	0.98617	0.26468	1.20511	0.02306	0.81816	0.22257	0.99810	0.02255	1.17925	0.97292	1.12644	0.92325	0.90051	0.89989
1.0	1.20830	0.02371	1.20698	0.02331	1.01972	0.02143	1.01854	0.02279	1.18082	0.99312	1.12760	0.94275	0.90969	0.90902

$\zeta = 0.25$; $\bar{s} = 0.1790$

0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.34581	0.38566
0.025	0.00818	1.06795	1.04365	0.00371	0.00568	0.02478	0.01877	0.00279	1.03983	0.01544	1.02570	0.01209	0.38322	0.41197
0.050	0.01788	1.11006	1.07456	0.00721	0.01195	0.05918	0.04660	0.00580	1.06685	0.03967	1.04454	0.03213	0.41565	0.43687
0.075	0.02717	1.14107	1.09958	0.01051	0.01830	0.11691	0.09780	0.00872	1.08832	0.08694	1.05996	0.07465	0.45256	0.46815
0.10	0.03739	1.16857	1.11974	0.01291	0.02454	0.18956	0.16875	0.01128	1.10548	0.15043	1.07246	0.13349	0.49175	0.50334
0.15	0.05962	1.18802	1.14930	0.01682	0.03750	0.33586	0.30306	0.01529	1.13046	0.28513	1.09086	0.26032	0.56443	0.57119
0.2	0.08534	1.19818	1.16945	0.01955	0.05276	0.45600	0.42451	0.01814	1.14740	0.40335	1.10543	0.37259	0.62857	0.62773
0.3	0.15067	1.16821	1.19471	0.02300	0.09521	0.60847	0.60896	0.02181	1.16856	0.57867	1.11922	0.53990	0.70749	0.70913
0.4	0.23717	1.09280	1.20978	0.02509	0.15750	0.67112	0.72895	0.02408	1.18114	0.69618	1.12863	0.65241	0.76219	0.76270
0.5	0.34626	0.98882	1.21975	0.02649	0.24172	0.66921	0.80820	0.02551	1.18943	0.77882	1.13485	0.73164	0.80013	0.80004
0.6	0.47857	0.85419	1.22684	0.02748	0.34879	0.61704	0.87021	0.02655	1.19531	0.83968	1.13926	0.79006	0.82785	0.82739
0.7	0.63442	0.69037	1.23214	0.02824	0.47914	0.52266	0.91761	0.02732	1.19968	0.88625	1.14255	0.83478	0.84893	0.84824
0.8	0.81396	0.49818	1.23625	0.02883	0.63304	0.39090	0.95497	0.02792	1.20307	0.92297	1.14510	0.87005	0.86550	0.86464
0.9	1.01751	0.27808	1.23954	0.02930	0.81064	0.22476	0.98515	0.02839	1.20577	0.95264	1.14713	0.89857	0.87884	0.87787
1.0	1.24453	0.03058	1.24224	0.02970	1.01208	0.02622	1.00999	0.02876	1.20797	0.97710	1.14878	0.92209	0.88962	0.88876

TABLE 12 (continued)

$\tau_1 = 0.30$; $\bar{s} = 0.2053$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_t	γ_n
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.33034	0.37194
0.025	0.00856	1.06847	1.04416	0.00389	0.00567	0.02314	0.01755	0.00278	1.04011	0.01417	1.02593	0.01124	0.36590	0.39709
0.050	0.01825	1.11122	1.07578	0.00768	0.01200	0.05087	0.03965	0.00583	1.06753	0.03253	1.04509	0.02607	0.39514	0.41930
0.075	0.02875	1.14360	1.10211	0.01105	0.01862	0.09374	0.07644	0.00892	1.08988	0.06557	1.06121	0.05496	0.42636	0.44498
0.10	0.03981	1.16795	1.12412	0.01405	0.02527	0.15139	0.12853	0.01179	1.10834	0.11402	1.07476	0.09906	0.46004	0.47454
0.15	0.06386	1.19734	1.15783	0.01880	0.03891	0.27993	0.24920	0.01656	1.13638	0.22926	1.09559	0.20636	0.52623	0.53498
0.2	0.09130	1.20681	1.18181	0.02225	0.05440	0.39562	0.36447	0.02015	1.15618	0.34033	1.11044	0.31100	0.58355	0.58908
0.3	0.15964	1.18291	1.21297	0.02682	0.09614	0.55562	0.54715	0.02497	1.18180	0.51744	1.12977	0.47897	0.66945	0.67171
0.4	0.24892	1.11564	1.23211	0.02966	0.15686	0.65105	0.67592	0.02799	1.19746	0.64276	1.14163	0.59832	0.72793	0.72866
0.5	0.36086	1.01258	1.24501	0.03159	0.23921	0.64128	0.76905	0.03003	1.20796	0.73357	1.14961	0.68498	0.76953	0.76940
0.6	0.49625	0.87714	1.25429	0.03300	0.34441	0.59932	0.83887	0.03150	1.21549	0.80176	1.15534	0.75012	0.80041	0.79976
0.7	0.65550	0.71108	1.26129	0.03407	0.47510	0.51512	0.89293	0.03259	1.22114	0.85461	1.15964	0.80066	0.82417	0.82319
0.8	0.83885	0.51537	1.26675	0.03491	0.62564	0.38764	0.93594	0.03344	1.22553	0.89669	1.16298	0.84093	0.84300	0.84177
0.9	1.04644	0.29061	1.27115	0.03560	0.80223	0.22606	0.97091	0.03411	1.22905	0.93095	1.16566	0.87372	0.85826	0.85686
1.0	1.27855	0.03716	1.27477	0.03617	1.00301	0.03053	0.99989	0.03465	1.23193	0.95937	1.16786	0.90092	0.87088	0.86935

$\tau_1 = 0.35$; $\bar{s} = 0.2297$

0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.31669	0.35947
0.025	0.00891	1.06887	1.04461	0.00406	0.00565	0.02198	0.01661	0.00278	1.04033	0.01319	1.02612	0.01057	0.35070	0.38363
0.050	0.01901	1.11204	1.07676	0.00800	0.01199	0.04681	0.03592	0.00583	1.06801	0.02867	1.04552	0.02300	0.37798	0.40433
0.075	0.03006	1.14521	1.10399	0.01169	0.01875	0.08001	0.06436	0.00901	1.09088	0.05314	1.06208	0.04386	0.40556	0.42651
0.10	0.04184	1.17091	1.12734	0.01502	0.02566	0.12618	0.10584	0.01209	1.11022	0.09032	1.07684	0.07710	0.43504	0.45166
0.15	0.06751	1.20589	1.16489	0.02050	0.03990	0.23752	0.20902	0.01748	1.14056	0.18744	1.09905	0.16651	0.49509	0.50567
0.20	0.09657	1.21701	1.19172	0.02466	0.05569	0.34611	0.31608	0.02174	1.16277	0.28939	1.11584	0.26181	0.54976	0.55664
0.25	0.12982	1.21442	1.21239	0.02785	0.07437	0.43789	0.41314	0.02507	1.17947	0.38248	1.12855	0.34943	0.59651	0.60101
0.3	0.16786	1.19879	1.22845	0.03035	0.09694	0.50851	0.49744	0.02771	1.19241	0.46566	1.13842	0.42613	0.63581	0.63871
0.4	0.25988	1.13482	1.25166	0.03401	0.15624	0.59320	0.63194	0.03158	1.21103	0.59362	1.15268	0.54951	0.69683	0.69777
0.5	0.37458	1.03307	1.26756	0.03654	0.23678	0.61366	0.73203	0.03425	1.22373	0.69062	1.16242	0.64148	0.74127	0.74111
0.6	0.51293	0.89735	1.27913	0.03840	0.34008	0.58092	0.80845	0.03619	1.23292	0.76483	1.16949	0.71210	0.77478	0.77394
0.7	0.67542	0.72965	1.28793	0.03985	0.46698	0.50247	0.86858	0.03765	1.23987	0.82312	1.17484	0.76762	0.80086	0.79955
0.8	0.86256	0.53112	1.29485	0.04096	0.61795	0.38521	0.91650	0.03878	1.24531	0.86997	1.17903	0.81228	0.82168	0.82005
0.9	1.07392	0.30245	1.30044	0.04189	0.79327	0.22659	0.95590	0.03968	1.24967	0.90839	1.18239	0.84893	0.83867	0.83680
1.0	1.31022	0.04410	1.30506	0.04267	0.99314	0.03423	0.98873	0.04041	1.25326	0.94044	1.18516	0.87951	0.85279	0.85074

TABLE 12 (continued)

$\zeta = 0.40$; $\bar{z} = 0.2525$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_e	γ_n
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.30449	0.34805
0.050	0.01971	1.11265	1.07761	0.00855	0.01195	0.04851	0.05557	0.00581	1.06858	0.02625	1.04587	0.02116	0.36805	0.39101
0.075	0.03122	1.14680	1.10550	0.01224	0.01875	0.07157	0.05701	0.00903	1.09158	0.04557	1.06272	0.03755	0.38822	0.41108
0.10	0.04359	1.17288	1.12985	0.01585	0.02584	0.10951	0.09016	0.01225	1.11150	0.07464	1.07747	0.06287	0.41458	0.43511
0.15	0.07069	1.20853	1.16956	0.02199	0.04055	0.20582	0.17889	0.01813	1.14357	0.15602	1.10162	0.13695	0.46922	0.48145
0.20	0.10125	1.22470	1.19981	0.02681	0.05664	0.30562	0.27705	0.02296	1.16775	0.24818	1.12005	0.22245	0.52092	0.52907
0.25	0.13596	1.22492	1.22822	0.03060	0.07581	0.39456	0.37050	0.02690	1.18685	0.33667	1.13451	0.30525	0.56659	0.57201
0.3	0.17541	1.21167	1.24172	0.03365	0.09757	0.46625	0.45399	0.03007	1.20099	0.41652	1.14557	0.38051	0.60591	0.60946
0.4	0.27012	1.15102	1.26891	0.03815	0.15562	0.55778	0.59177	0.03482	1.22240	0.54860	1.16211	0.50496	0.66848	0.66967
0.5	0.38758	1.05087	1.26785	0.04151	0.28442	0.58678	0.69719	0.03815	1.23723	0.65008	1.17360	0.60101	0.71510	0.71492
0.6	0.52874	0.91527	1.20178	0.04367	0.38585	0.56228	0.77915	0.04060	1.24807	0.72917	1.18201	0.67601	0.75080	0.74975
0.7	0.69454	0.74643	1.12145	0.04550	0.46088	0.49109	0.84421	0.04246	1.25633	0.79209	1.18843	0.73575	0.77886	0.77725
0.8	0.88471	0.54568	1.02091	0.04696	0.61015	0.37786	0.89692	0.04391	1.26283	0.84516	1.19348	0.78427	0.80145	0.79940
0.9	1.10006	0.31866	1.02778	0.04816	0.78408	0.22586	0.94040	0.04507	1.26807	0.88584	1.19757	0.82438	0.81999	0.81768
1.0	1.34052	0.05105	1.33548	0.04917	0.98275	0.03785	0.97681	0.04601	1.27259	0.92078	1.20092	0.85804	0.83548	0.83288

$\zeta = 0.45$; $\bar{z} = 0.2784$

0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.29549	0.33748
0.050	0.02084	1.11812	1.07856	0.00864	0.01185	0.04162	0.05189	0.00577	1.06867	0.02452	1.04617	0.01988	0.34977	0.37888
0.075	0.03226	1.14708	1.10676	0.01274	0.01867	0.06617	0.05227	0.00901	1.09209	0.04069	1.06328	0.03526	0.37827	0.39748
0.10	0.04514	1.17428	1.13186	0.01658	0.02585	0.09787	0.07989	0.01251	1.11259	0.06404	1.07853	0.05344	0.39751	0.41756
0.15	0.07849	1.21186	1.17574	0.02330	0.04092	0.18083	0.15616	0.01856	1.14575	0.13229	1.10358	0.11491	0.44786	0.46101
0.20	0.10544	1.23058	1.20652	0.02874	0.05728	0.27255	0.24544	0.02393	1.17155	0.21479	1.12356	0.19089	0.49606	0.50586
0.25	0.14154	1.23523	1.23242	0.03312	0.07598	0.35752	0.33406	0.02840	1.19179	0.29782	1.13898	0.26814	0.54028	0.54658
0.3	0.18285	1.22218	1.25320	0.03667	0.09801	0.42896	0.41604	0.03208	1.20795	0.37524	1.15151	0.34058	0.57921	0.58557
0.4	0.27970	1.16480	1.28425	0.04204	0.15494	0.52487	0.55516	0.03770	1.23196	0.50746	1.17020	0.46485	0.64258	0.64401
0.5	0.39976	1.06642	1.30622	0.04590	0.25209	0.56086	0.66453	0.04178	1.24884	0.61196	1.18338	0.56843	0.69083	0.69065
0.6	0.54375	0.93127	1.32256	0.04879	0.38164	0.54366	0.75106	0.04472	1.26130	0.69491	1.19313	0.64185	0.72880	0.72705
0.7	0.71287	0.76168	1.33518	0.05106	0.45480	0.47917	0.82059	0.04700	1.27086	0.76175	1.20068	0.70510	0.75807	0.75610
0.8	0.90604	0.55907	1.34525	0.05288	0.60229	0.37175	0.87742	0.04880	1.27842	0.81650	1.20656	0.75698	0.78222	0.77978
0.9	1.12502	0.32435	1.35414	0.05438	0.77459	0.22458	0.92461	0.05024	1.28455	0.86206	1.21157	0.80017	0.80216	0.79929
1.0	1.36948	0.05802	1.36028	0.05566	0.97199	0.03975	0.96435	0.05141	1.28962	0.90050	1.21584	0.83664	0.81889	0.81572

TABLE 12 (continued)

$\zeta = 0.50$; $\bar{s} = 0.2951$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_1	γ_2
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.28549	0.32767
0.050	0.02095	1.11850	1.07908	0.00895	0.01176	0.04024	0.05056	0.00575	1.06890	0.02818	1.04643	0.01889	0.33779	0.36770
0.075	0.03521	1.14766	1.10787	0.01320	0.01854	0.06256	0.04900	0.00896	1.09247	0.03784	1.06865	0.03054	0.36005	0.38580
0.10	0.04658	1.17519	1.13557	0.01725	0.02576	0.08998	0.07276	0.01280	1.11804	0.05668	1.07900	0.04704	0.38235	0.40859
0.15	0.07599	1.21427	1.17721	0.02448	0.04106	0.16217	0.13888	0.01883	1.14756	0.11426	1.10509	0.09835	0.42856	0.44342
0.20	0.10921	1.25498	1.21217	0.03049	0.05766	0.24557	0.21982	0.02464	1.17446	0.18769	1.12598	0.16550	0.47440	0.48475
0.25	0.14665	1.28985	1.24081	0.03542	0.07641	0.32607	0.30884	0.02960	1.19610	0.26488	1.14280	0.23694	0.51700	0.52410
0.30	0.18874	1.32079	1.26528	0.03949	0.09825	0.39607	0.38289	0.03377	1.21362	0.33913	1.15647	0.30610	0.55524	0.55999
0.35	0.23598	1.34934	1.28215	0.04288	0.12397	0.45248	0.45590	0.03728	1.22802	0.40775	1.16775	0.37025	0.58906	0.59205
0.4	0.28866	1.37658	1.29800	0.04574	0.15419	0.49445	0.52185	0.04026	1.24005	0.46994	1.17717	0.42860	0.61888	0.62049
0.5	0.41132	1.08010	1.32297	0.05080	0.22980	0.55607	0.63597	0.04499	1.25886	0.57623	1.19198	0.52854	0.66825	0.66808
0.6	0.55804	0.94563	1.34178	0.05376	0.32758	0.52528	0.72420	0.04854	1.27290	0.66214	1.20804	0.60952	0.70717	0.70571
0.7	0.72960	0.77564	1.35684	0.05649	0.44880	0.46696	0.79759	0.05128	1.28574	0.73224	1.21160	0.67569	0.73839	0.73609
0.8	0.92647	0.57162	1.36804	0.05870	0.59447	0.36506	0.85810	0.05345	1.29257	0.79020	1.21842	0.73046	0.76391	0.76098
0.9	1.14896	0.33455	1.37765	0.06054	0.76510	0.22258	0.90868	0.05519	1.29938	0.83877	1.22396	0.77640	0.78510	0.78171
1.0	1.39728	0.06502	1.38569	0.06209	0.96106	0.04155	0.95150	0.05661	1.30520	0.87998	1.22856	0.81540	0.80297	0.79921

$\zeta = 0.60$; $\bar{s} = 0.3291$

0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.26592	0.30997
0.050	0.02200	1.11407	1.08022	0.00944	0.01158	0.03839	0.02848	0.00568	1.06924	0.02115	1.04686	0.01733	0.31685	0.34768
0.075	0.03691	1.14847	1.10977	0.01402	0.01819	0.05825	0.04470	0.00882	1.09301	0.03303	1.06451	0.02711	0.33784	0.36585
0.10	0.04897	1.17641	1.13658	0.01842	0.02585	0.08047	0.06880	0.01218	1.11890	0.04755	1.08000	0.03930	0.35726	0.38006
0.15	0.08028	1.21750	1.18269	0.02651	0.04085	0.13696	0.11584	0.01902	1.14944	0.08978	1.10723	0.07623	0.39767	0.41432
0.20	0.11572	1.24098	1.22117	0.03352	0.05776	0.20562	0.18191	0.02549	1.17844	0.14764	1.12980	0.12843	0.43845	0.45043
0.25	0.15553	1.24929	1.25315	0.03949	0.07659	0.27643	0.25514	0.03127	1.20228	0.21517	1.14851	0.18846	0.47767	0.48612
0.30	0.20009	1.24571	1.27987	0.04454	0.09814	0.34171	0.32855	0.03651	1.22205	0.27994	1.16412	0.25014	0.51404	0.51982
0.35	0.24978	1.22543	1.30259	0.04885	0.12320	0.39718	0.39866	0.04067	1.23863	0.34434	1.17725	0.30995	0.54709	0.55081
0.4	0.30494	1.19589	1.32157	0.05255	0.15240	0.44082	0.46895	0.04445	1.25267	0.40472	1.18839	0.36622	0.57686	0.57896
0.5	0.43265	1.10286	1.35238	0.05856	0.22521	0.49022	0.57879	0.05059	1.27507	0.51168	1.20625	0.46625	0.62754	0.62750
0.6	0.58464	0.97029	1.37598	0.06322	0.31948	0.48977	0.67429	0.05530	1.29208	0.60121	1.21980	0.55020	0.66850	0.66668
0.7	0.76188	0.80023	1.39468	0.06695	0.43703	0.44218	0.75378	0.05900	1.30541	0.67609	1.23045	0.62057	0.70200	0.69906
0.8	0.96494	0.59432	1.40976	0.07002	0.57900	0.35084	0.82045	0.06195	1.31611	0.73915	1.23901	0.67990	0.72977	0.72599
0.9	1.19420	0.35361	1.42230	0.07258	0.74614	0.21670	0.87690	0.06435	1.32488	0.79275	1.24603	0.73038	0.75309	0.74868
1.0	1.44992	0.07884	1.43287	0.07478	0.93896	0.04322	0.92518	0.06651	1.33220	0.83878	1.25190	0.77372	0.77293	0.76802

TABLE 12 (continued)

$\zeta_1 = 0.70$; $\bar{s} = 0.3612$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_e	γ_c
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.25089	0.29455
0.050	0.02295	1.11447	1.08124	0.00990	0.01126	0.05728	0.02687	0.00552	1.06946	0.01964	1.04719	0.01618	0.29902	0.32997
0.075	0.03640	1.14900	1.11158	0.01475	0.01776	0.05585	0.04182	0.00864	1.09355	0.03026	1.06482	0.02490	0.31828	0.34520
0.10	0.05108	1.17718	1.13869	0.01942	0.02478	0.07543	0.05847	0.01196	1.11440	0.04227	1.08071	0.03492	0.33659	0.36012
0.15	0.08889	1.21897	1.18694	0.02825	0.04018	0.12200	0.10085	0.01892	1.15061	0.07489	1.10864	0.06802	0.37296	0.39070
0.20	0.12119	1.24454	1.22809	0.03609	0.05717	0.17905	0.15682	0.02579	1.18081	0.12080	1.13233	0.10392	0.40967	0.42278
0.25	0.16507	1.25537	1.26517	0.04296	0.07601	0.24056	0.22012	0.03218	1.20622	0.17579	1.15244	0.15881	0.44569	0.45516
0.30	0.20985	1.25255	1.29515	0.04898	0.09733	0.29995	0.28686	0.03795	1.22772	0.23466	1.16956	0.20779	0.47998	0.48652
0.35	0.26180	1.23698	1.31884	0.05412	0.12185	0.35265	0.35287	0.04304	1.24604	0.29574	1.18421	0.26281	0.51175	0.51607
0.4	0.31928	1.20943	1.34107	0.05864	0.15020	0.39596	0.41608	0.04755	1.26179	0.35089	1.19685	0.31527	0.54097	0.54345
0.5	0.45177	1.12085	1.37741	0.06612	0.22053	0.44947	0.53082	0.05505	1.28732	0.45566	1.21785	0.41277	0.59187	0.59162
0.6	0.60886	0.99062	1.40578	0.07204	0.31168	0.45650	0.62925	0.06094	1.30705	0.54689	1.23325	0.49750	0.63401	0.63186
0.7	0.79158	0.82124	1.42851	0.07685	0.42562	0.41758	0.71801	0.06562	1.32270	0.62412	1.24588	0.57026	0.66908	0.66555
0.8	1.00060	0.61458	1.44716	0.08085	0.56894	0.33441	0.78443	0.06941	1.33539	0.69076	1.25615	0.63275	0.69855	0.69898
0.9	1.25687	0.37116	1.46275	0.08421	0.72754	0.20885	0.84567	0.07250	1.34587	0.74818	1.26461	0.68665	0.72857	0.71819
1.0	1.49922	0.09258	1.47600	0.08712	0.91708	0.04245	0.89857	0.07505	1.35468	0.79799	1.27178	0.73345	0.74508	0.73901

$\zeta_1 = 0.80$; $\bar{s} = 0.3901$

0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.25785	0.28038
0.050	0.02879	1.11476	1.08214	0.01051	0.01097	0.05648	0.02555	0.00589	1.06960	0.01846	1.04745	0.01515	0.28855	0.31424
0.075	0.03774	1.14989	1.11279	0.01537	0.01728	0.05457	0.03961	0.00844	1.09356	0.02826	1.06521	0.02325	0.30172	0.32867
0.10	0.05294	1.17761	1.14068	0.02032	0.02411	0.07256	0.05485	0.01170	1.11470	0.03884	1.08125	0.03205	0.31894	0.34267
0.15	0.08698	1.21999	1.19040	0.02970	0.03914	0.11491	0.09224	0.01860	1.15129	0.06666	1.10968	0.05517	0.35285	0.37091
0.20	0.12588	1.24668	1.23566	0.03830	0.05611	0.16137	0.13868	0.02572	1.18225	0.10254	1.13406	0.08758	0.38591	0.39972
0.25	0.16956	1.25985	1.27126	0.04597	0.07485	0.21475	0.19457	0.03258	1.20874	0.14860	1.15519	0.12880	0.41911	0.42927
0.30	0.21829	1.25867	1.30396	0.05277	0.09592	0.26808	0.25466	0.03884	1.23154	0.19999	1.17548	0.17558	0.45121	0.45841
0.35	0.27283	1.24538	1.33249	0.05878	0.11996	0.31709	0.31610	0.04458	1.25125	0.25841	1.18986	0.22458	0.48160	0.48688
0.4	0.33197	1.22004	1.35748	0.06409	0.14757	0.35881	0.37643	0.04974	1.26840	0.30658	1.20321	0.27561	0.50996	0.51274
0.5	0.46900	1.13524	1.39900	0.07308	0.21572	0.41378	0.48918	0.05849	1.29665	0.40782	1.22609	0.36695	0.56038	0.56018
0.6	0.62098	1.00758	1.43198	0.08025	0.30891	0.42586	0.58877	0.06551	1.31681	0.49743	1.24409	0.45079	0.60805	0.60062
0.7	0.81899	0.83939	1.45876	0.08615	0.41456	0.39874	0.67582	0.07119	1.33661	0.57646	1.25857	0.52452	0.64915	0.64511
0.8	1.08579	0.62227	1.48096	0.09112	0.54936	0.31789	0.75029	0.07582	1.35117	0.64539	1.27045	0.58896	0.66987	0.66460
0.9	1.27589	0.38758	1.49968	0.09537	0.70947	0.19940	0.81537	0.07964	1.36330	0.70561	1.28051	0.64532	0.69622	0.68998
1.0	1.54565	0.10558	1.51572	0.09905	0.89571	0.08948	0.87211	0.08282	1.37354	0.75841	1.28867	0.69479	0.71901	0.71199

TABLE 12 (continued)

$\zeta = 0.90$; $\bar{s} = 0.4162$

μ	ψ	ϕ	χ	ζ	ξ	η	σ	θ	$X^{(1)}$	$Y^{(1)}$	$X^{(2)}$	$Y^{(2)}$	γ_t	γ_n
0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.22685	0.26781
0.050	0.02455	1.11498	1.08294	0.01067	0.01067	0.05599	0.02445	0.00526	1.06969	0.01752	1.04766	0.01454	0.26998	0.30009
0.075	0.03894	1.14968	1.11405	0.01595	0.01678	0.05847	0.03781	0.00825	1.09869	0.02672	1.06552	0.02193	0.28722	0.31885
0.10	0.05462	1.17795	1.14244	0.02111	0.02359	0.07084	0.05205	0.01141	1.11489	0.03689	1.08167	0.02996	0.30853	0.32710
0.15	0.08979	1.22054	1.19845	0.03103	0.03812	0.10754	0.08490	0.01825	1.15168	0.05924	1.11084	0.04926	0.34485	0.35326
0.20	0.12998	1.24802	1.23852	0.04025	0.05475	0.14957	0.12604	0.02541	1.18510	0.08990	1.13528	0.07597	0.36578	0.37995
0.25	0.17528	1.26195	1.27799	0.04861	0.07325	0.19619	0.17517	0.03249	1.21084	0.12870	1.15713	0.11056	0.39656	0.40714
0.30	0.22570	1.26297	1.31308	0.05616	0.09405	0.24886	0.22959	0.03921	1.23410	0.17388	1.17682	0.15095	0.42666	0.43426
0.35	0.28162	1.25157	1.34402	0.06292	0.11761	0.28886	0.28643	0.04545	1.25491	0.22126	1.19519	0.19462	0.45556	0.46066
0.4	0.34326	1.22816	1.37150	0.06899	0.14456	0.32825	0.34350	0.05115	1.27522	0.27019	1.20807	0.23950	0.48290	0.48591
0.5	0.48458	1.14690	1.41784	0.07934	0.21076	0.38264	0.45802	0.06104	1.30377	0.36577	1.23298	0.32771	0.53289	0.53214
0.6	0.65128	1.02189	1.45523	0.08782	0.29628	0.39796	0.55244	0.06913	1.32810	0.45896	1.25287	0.40949	0.57510	0.57245
0.7	0.84436	0.85520	1.48599	0.09489	0.40885	0.37102	0.64059	0.07577	1.34786	0.53305	1.26904	0.48806	0.61180	0.60785
0.8	1.06477	0.64834	1.51174	0.10087	0.53529	0.30117	0.71811	0.08125	1.36418	0.60524	1.28242	0.54850	0.64341	0.63753
0.9	1.31303	0.40241	1.53365	0.10605	0.69208	0.18880	0.78620	0.08581	1.37787	0.66537	1.29364	0.60650	0.67078	0.66878
1.0	1.58957	0.11822	1.55252	0.11058	0.87508	0.03464	0.84612	0.08962	1.38950	0.72042	1.30318	0.65797	0.69464	0.68678

$\zeta = 1.00$; $\bar{s} = 0.4401$

0	0	1.00000	1.00000	0	0	0	0	0	1.00000	0	1.00000	0	0.21607	0.25640
0.075	0.04008	1.14991	1.11519	0.01647	0.01626	0.05284	0.03626	0.00801	1.09377	0.02548	1.06576	0.02082	0.27481	0.30039
0.10	0.05614	1.17825	1.14402	0.02184	0.02265	0.06975	0.04979	0.01110	1.11499	0.03452	1.08199	0.02851	0.28986	0.31804
0.15	0.09228	1.22096	1.19607	0.03221	0.03692	0.10412	0.08006	0.01781	1.15190	0.05489	1.11087	0.04540	0.31944	0.33774
0.20	0.13368	1.24889	1.24255	0.04195	0.05314	0.14169	0.11679	0.02494	1.18560	0.08096	1.13616	0.06789	0.34855	0.36259
0.25	0.18024	1.26575	1.28574	0.05095	0.07134	0.18290	0.16059	0.03216	1.21135	0.11401	1.15854	0.09709	0.37708	0.38785
0.30	0.23226	1.26605	1.32078	0.05917	0.09177	0.22553	0.20986	0.03916	1.23582	0.15290	1.17859	0.13199	0.40537	0.41319
0.35	0.28989	1.25621	1.35395	0.06664	0.11489	0.26656	0.26235	0.04578	1.25748	0.19565	1.19605	0.17074	0.43281	0.43812
0.4	0.35356	1.23447	1.38565	0.07340	0.14122	0.30325	0.31604	0.05194	1.27672	0.24082	1.21177	0.21154	0.45906	0.46228
0.5	0.49868	1.15646	1.43445	0.08512	0.20568	0.35580	0.42160	0.06282	1.30925	0.33016	1.23842	0.29412	0.50784	0.50708
0.6	0.66979	1.03410	1.47608	0.09485	0.28873	0.37278	0.51987	0.07190	1.33548	0.41551	1.25999	0.37801	0.54974	0.54691
0.7	0.86784	0.86912	1.51065	0.10307	0.38388	0.34960	0.60867	0.07945	1.35705	0.49375	1.27771	0.44559	0.58670	0.58188
0.8	1.09369	0.66288	1.53991	0.11009	0.52171	0.28458	0.68790	0.08576	1.37498	0.56435	1.29250	0.51122	0.61889	0.61251
0.9	1.34797	0.41640	1.56500	0.11619	0.67528	0.17757	0.75828	0.09104	1.39015	0.62762	1.30498	0.57018	0.64708	0.63958
1.0	1.63118	0.13048	1.58678	0.12155	0.85509	0.02823	0.82078	0.09549	1.40308	0.68429	1.31566	0.62304	0.67174	0.66306

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